

Service Service Service

SDI PDP 2K6

S42SD-YD09 (42-inch SD, v5)
S42AX-YD02 (42-inch HD, w1)
S50HW-YD01 (50-inch HD, w1)
S63HW-XD05 (63-inch HD, v4)

Service Manual

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Subject to modification

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1. Technical Specifications, Connections, and Chassis Overview

Index of this chapter:

- 1.1 PDP Overviews
- 1.2 Serial Numbers
- 1.3 Chassis Overviews

Notes:

- Figures can deviate due to the different model executions.
- Specifications are indicative (subject to change).

1.1 PDP Overviews

Table 1-1 PDP overview

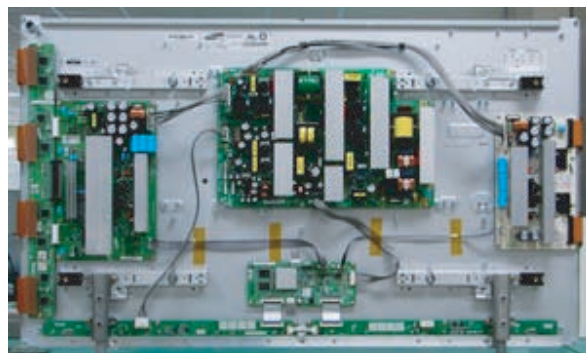
	PDP Type / Version	Model Name	H x V Pixel
1	42" SD v5	S42SD-YD09	852 x 480
2	42" HD w1	S42AX-YD02	1024 x 768
3	50" HD w1	S50HW-YD01	1366 x 768
4	63" HD v4	S63HW-XD05	1366 x 768

Table 1-2 PDP vs Chassis overview

Display type	Model #	Chassis	Chassis Manual #
42" SD v5	42PF5521D/10	LC4.41E AB	3122 785 16230
42" SD v5	42PF5521D/12	LC4.41E AB	3122 785 16230
42" HD w1	42PF9431D/37	BJ2.5U PA	3122 785 15930
42" HD w1	42PF9631D/37	BJ2.4U PA	3122 785 15920
50" HD w1	50PF9631D/37	BJ2.4U PA	3122 785 15920
50" HD w1	50PF9731D/37	BJ2.4U PA	3122 785 15920
63" HD v4	63PF9631D/37	BJ3.0U PA	3122 785 16460

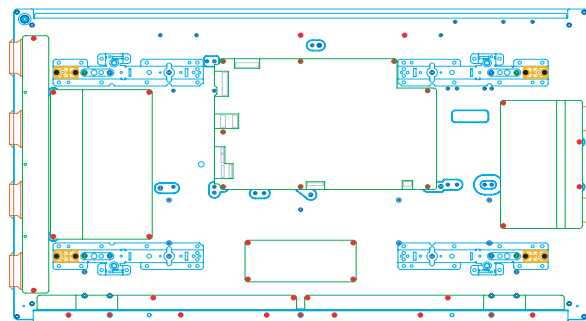
In above table the link is given between the SDI Plasma Display Panel and the Philips TV chassis (incl. chassis manual no.).

1.1.1 42" SD v5



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Figure 1-1 Rear view of plasma panel (42" SD v5)



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Figure 1-2 Location of mounting screws (42" SD v5)

NOTE: screw torque 9.5 ± 0.5 kgf.cm

No	Item	Specification 42" SD v5	
1	Pixel	852 (H) x 480 (V) pixels (1 pixel = 1 R,G,B cells)	
2	Number of Cells	2556 (H) x 480 (V)	
3	Pixel Pitch	1.095 (H) mm x 1.110 (V) mm	
4	Cell Pitch	R	0.365 (H) mm x 1.110 (V) mm
		G	0.365 (H) mm x 1.110 (V) mm
		B	0.365 (H) mm x 1.110 (V) mm
5	Display size	932.940 (H) x 532.800 (V) mm	
6	Screen size	Diagonal 42" Colour Plasma Display Module	
7	Screen aspect	16:9	
8	Display colour	16.77 million colours (8-bit)	
9	Viewing angle	Over 160 deg (angle with 50% and greater brightness perpendicular to PDP module)	
10	Dimensions	982 (W) x 582 (H) x 54 (D) mm	
11	Weight	1 Module	About 15.4 kg
14	Vertical frequency and Video/Logic Interface	60 Hz/ 50 Hz, LVDS	

1.1.2 42" HD w1

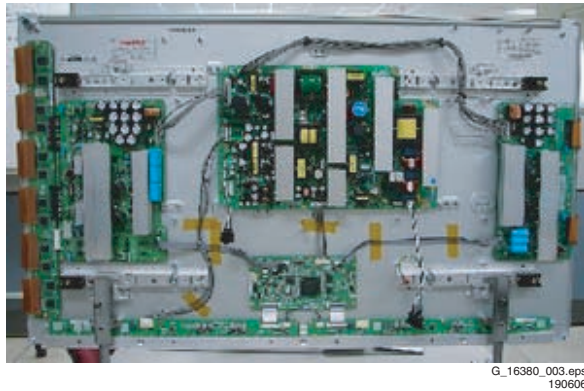


Figure 1-3 Rear view of plasma panel (42" HD w1)

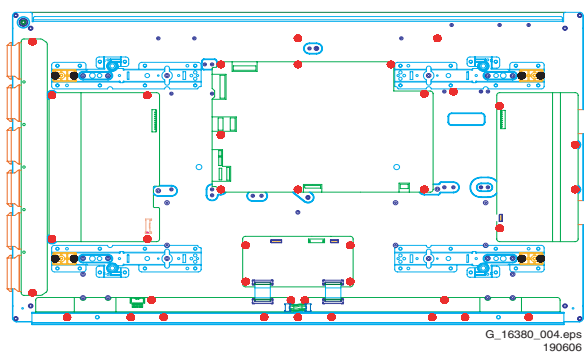


Figure 1-4 Location of mounting screws (42" HD w1)

NOTE: screw torque 9.5 ± 0.5 kgf.cm

No	Item	Specification 42" HD w1	
1	Pixel	1,024 (H) x 768 (V) pixels (1 pixel = 1 R,G,B cells)	
2	Number of Cells	3072 (H) x 768 (V)	
3	Pixel Pitch	0.912mm (H) x 0.693mm (V)	
4	Cell Pitch	R	Horizontal 0.304 mm Vertical 0.693 mm
		G	Horizontal 0.304 mm Vertical 0.693 mm
		B	Horizontal 0.304 mm Vertical 0.693 mm
5	Display size	933.89 (H) x 532.22 (V) mm	
6	Screen size	Diagonal 42" Colour Plasma Display Module	
7	Screen aspect	16:9	
8	Display colour	1073.7 million colours (10-bit)	
9	Viewing angle	Over 160 deg (angle with 50% and greater brightness perpendicular to PDP module)	
10	Dimensions	982 (W) x 582 (H) x 54 (D) mm	
11	Weight	1 Module	About 16.8 kg
12	Vertical frequency Video/Logic Interface	60/50 Hz, LVDS	

1.1.3 50" HD w1

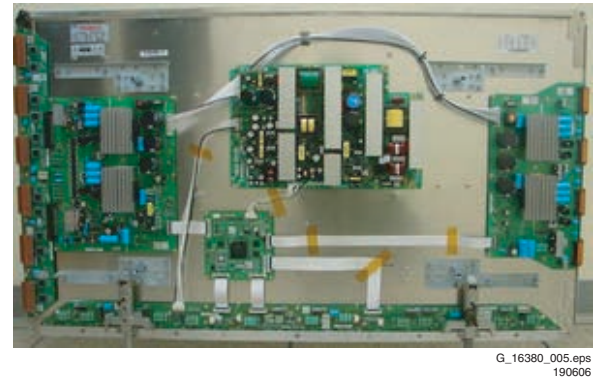


Figure 1-5 Rear view of plasma panel (50" HD w1)

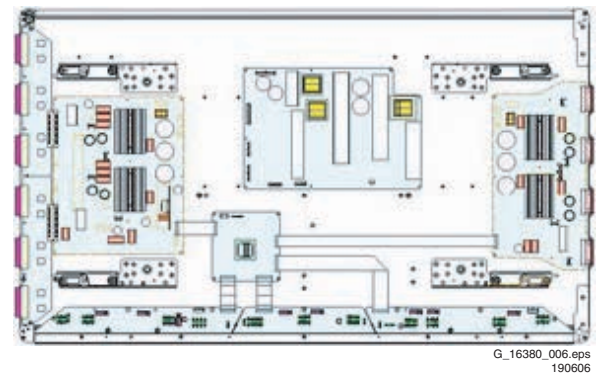


Figure 1-6 Location of mounting screws (50" HD w1)

NOTE: screw torque 9.5 ± 0.5 kgf.cm

No	Item	Specification 50" HD w1	
1	Pixel	1366 (H) x 768 (V) pixels (1 pixel = 1 R,G,B cells)	
2	Number of Cells	4,098 (H) x 768 (V) cells	
3	Pixel Pitch	0.810 mm (H) x 0.810 mm (V)	
4	Cell Pitch	R	Horizontal 0.270 mm Vertical 0.810 mm
		G	Horizontal 0.270 mm Vertical 0.810 mm
		B	Horizontal 0.270 mm Vertical 0.810 mm
5	Display size	1106.46 mm (H) x 622.08 mm (H)	
6	Screen size	Diagonal 50" Colour Plasma Display Module	
7	Screen aspect	16:9	
8	Display colour	549.75 billion colours (13-bit)	
9	Viewing angle	Over 160 deg (angle with 50% and greater brightness perpendicular to PDP module)	
10	Dimensions	1175 (W) x 678.5 (H) x 63.8 (D) mm	
11	Weight	Module 1	About 18.0 kg
12	Vertical frequency Video/Logic Interface	60/50 Hz, LVDS	

1.1.4 63" HD v4

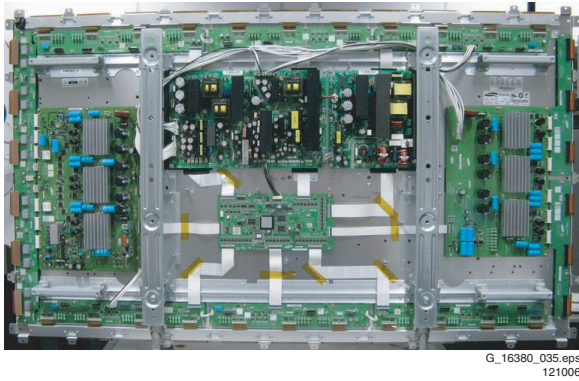


Figure 1-7 Rear view of plasma panel (63" HD v4)

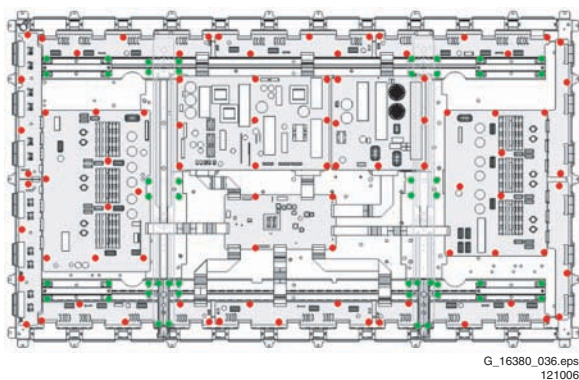


Figure 1-8 Location of mounting screws (63" HD v4)

NOTE: screw torque 9.5 ± 0.5 kgf.cm

No	Item	Specification 63" HD v4	
1	Pixel	1366 (H) x 768 (V) pixels (1 pixel = 1 R,G,B cells)	
2	Number of Cells	4,098 (H) x 768 (V) cells	
3	Pixel Pitch	1.02 mm (H) x 1.02 mm (V)	
4	Cell Pitch	R	Horizontal 0.34 mm Vertical 1.02 mm
		G	Horizontal 0.34 mm Vertical 1.02 mm
		B	Horizontal 0.34 mm Vertical 1.02 mm
5	Display size	1393.3 mm (H) x 783.4 mm (H)	
6	Screen size	Diagonal 63" Colour Plasma Display Module	
7	Screen aspect	16:9	
8	Display colour	1073.7 million colours (13-bit)	
9	Viewing angle	Over 160 deg (angle with 50% and greater brightness perpendicular to PDP module)	
10	Dimensions	approx. 1680 (W) x 875 (H) x 750 (D) mm	
11	Weight	Module 3	About 44.0 kg
12	Vertical frequency Video/Logic Interface	60/50 Hz, LVDS	

1.2 Serial Numbers

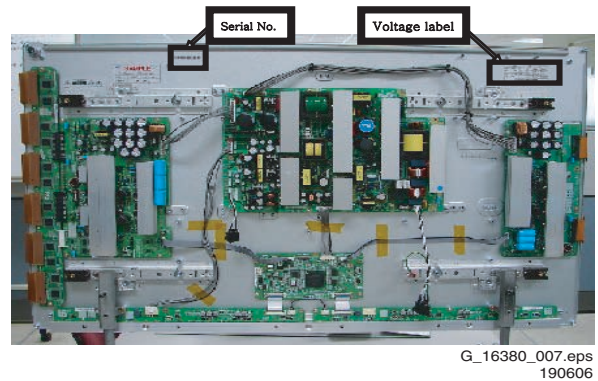


Figure 1-9 Location of the serial number

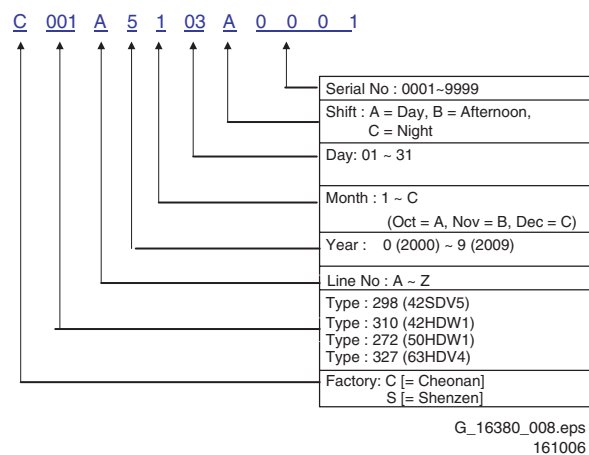
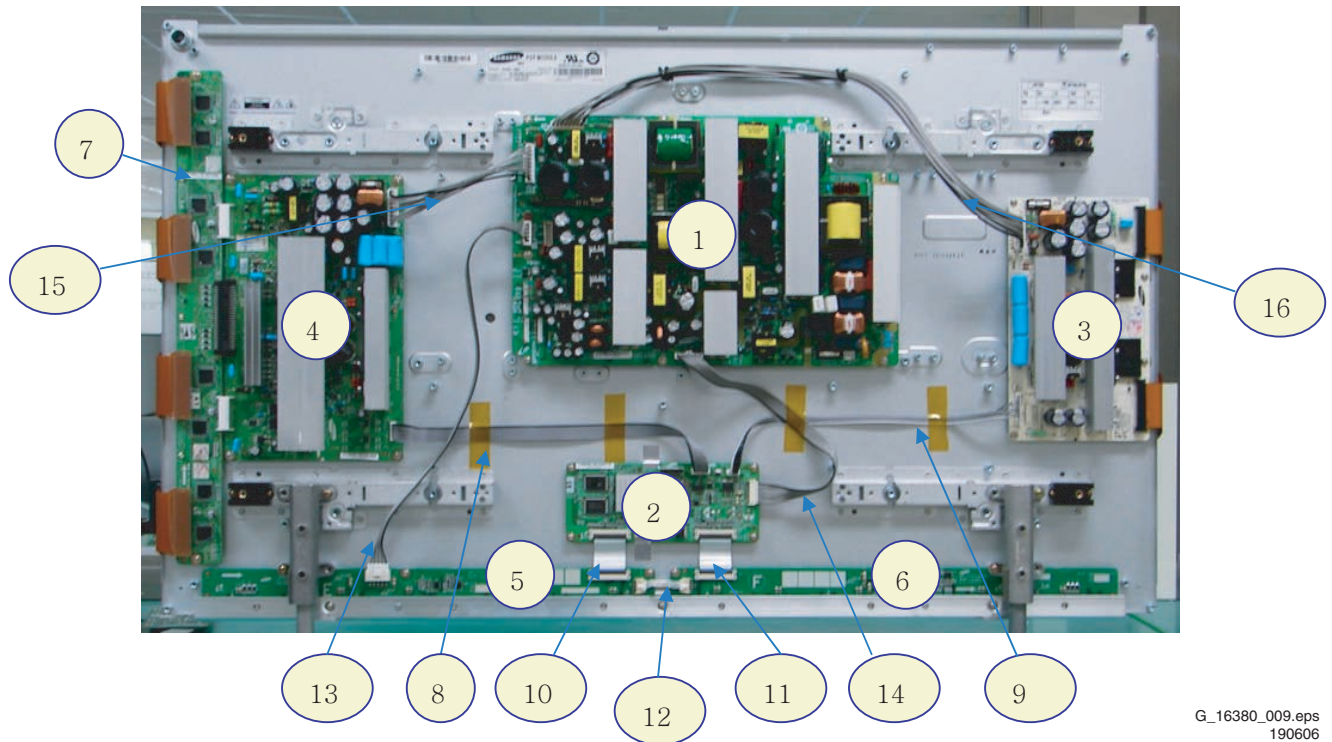


Figure 1-10 Explanation of the serial number

1.3 Chassis Overviews

1.3.1 42" SD v5



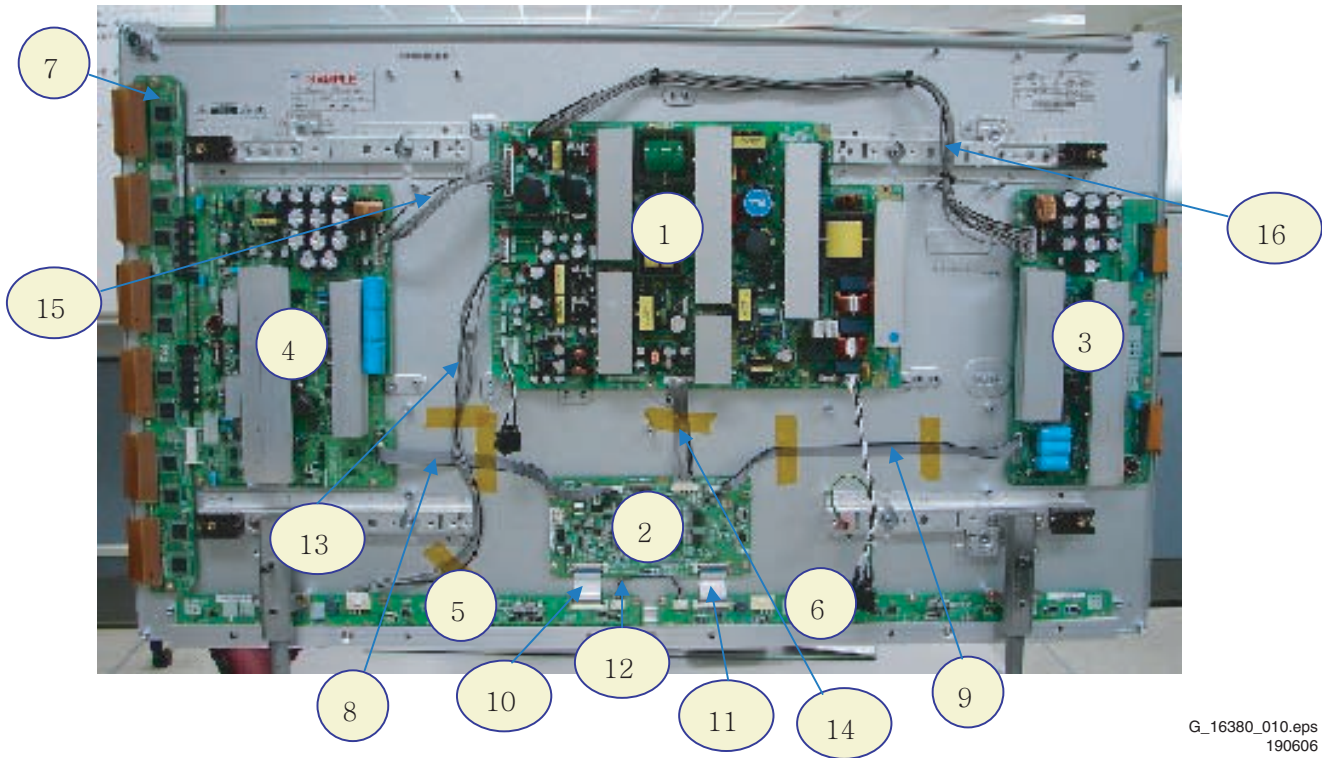
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Figure 1-11 PWB location (42" SD v5)

Table 1-3 PWB overview (42" SD v5)

No.	Location	Name
1	SMPS	SMPS
2	LOGIC-MAIN Board	Assy PWB Logic Main
3	X-MAIN Driving Board	Assy PWB X Main
4	Y-MAIN Driving Board	Assy PWB Y Main
5	LOGIC E BUFFER Board	Assy PWB buffer
6	LOGIC F BUFFER Board	Assy PWB buffer
7	Y-BUFFER Board	Assy PWB buffer
8	LOGIC + Y-MAIN	Lead connector
9	LOGIC + X-MAIN	Lead connector
10	LOGIC + LOGIC BUF (E)	FFC cable-flat
11	LOGIC + LOGIC BUF (F)	FFC cable-flat
12	LOGIC BUF (E) + (F)	Lead connector
13	SMPS + LOGIC BUF (E)	Lead connector
14	SMPS + LOGIC MAIN	Lead connector
15	SMPS + Y-MAIN	Lead connector
16	SMPS + X-MAIN	Lead connector

1.3.2 42" HD w1



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Figure 1-12 PWB location (42" HD w1)

Table 1-4 PWB overview (42" HD w1)

No.	Location	Name
1	SMPS	SMPS
2	LOGIC-MAIN Board	Assy PWB LOGIC Main
3	X-MAIN Driving Board	Assy PWB X Main
4	Y-MAIN Driving Board	Assy PWB Y Main
5	LOGIC E BUFFER Board	Assy PWB Buffer
6	LOGIC F BUFFER Board	Assy PWB Buffer
7	Y-BUFFER Board	Assy PWB Buffer
8	LOGIC + Y-MAIN	Lead connector
9	LOGIC + X-MAIN	Lead connector
10	LOGIC + LOGIC BUF(E)	FFC Cable-flat
11	LOGIC + LOGIC BUF(F)	FFC Cable-flat
12	LOGIC BUF(E) + LOG. BUF(F)	Lead connector
13	SMPS + LOGIC BUF(E)	Lead connector
14	SMPS + LOGIC MAIN	Lead connector
15	SMPS + Y-MAIN	Lead connector
16	SMPS + X-MAIN	Lead connector

1.3.3 50" HD w1

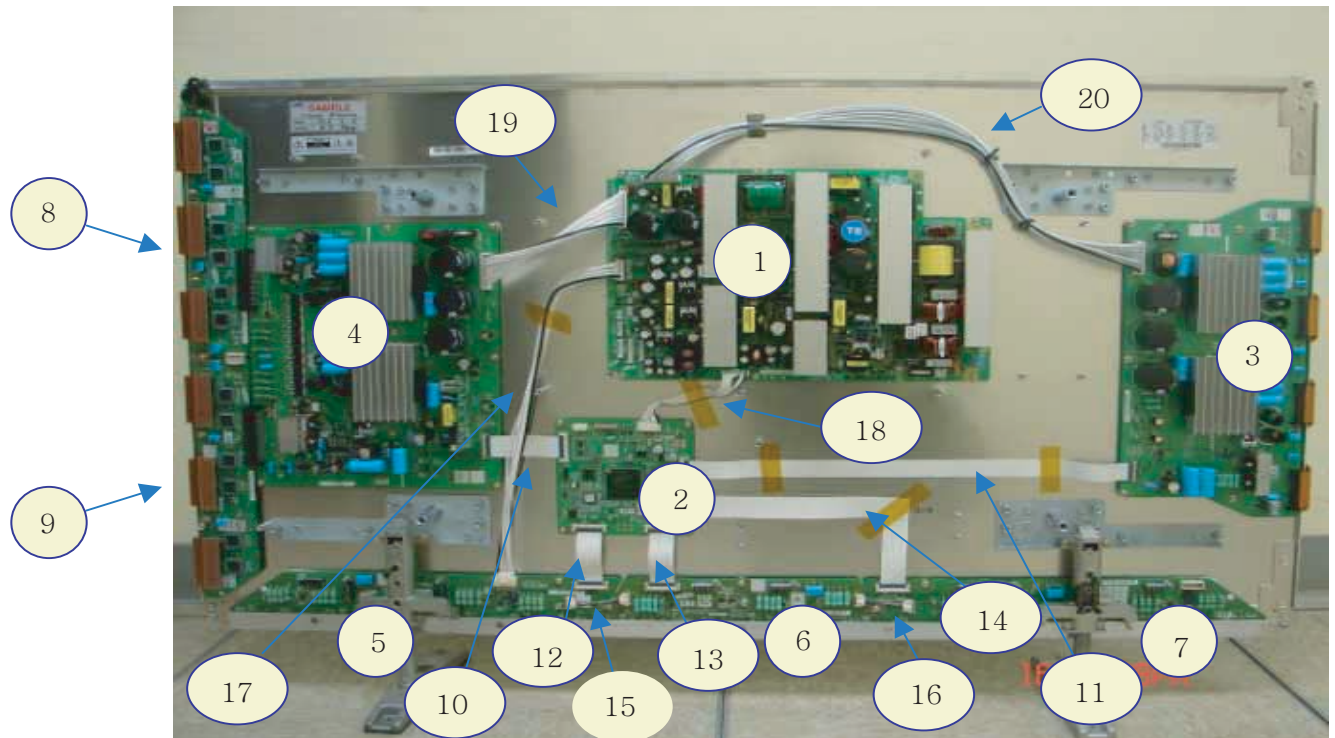
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Figure 1-13 PWB location (50" HD w5)

Table 1-5 PWB overview (50" HD w1)

No.	Location	Name
1	SMPS	SMPS
2	LOGIC-MAIN Board	Assy PWB LOGIC Main
3	X-MAIN Driving Board	Assy PWB X Main
4	Y-MAIN Driving Board	Assy PWB Y Main
5	LOGIC E BUFFER Board	Assy PWB Buffer E
6	LOGIC F BUFFER Board	Assy PWB Buffer F
7	LOGIC G BUFFER Board	Assy PWB Buffer G
8	Y-BUFFER (Upper) Board	Assy PWB Buffer
9	Y-BUFFER (Lower) Board	Assy PWB Buffer
10	LOGIC + Y-MAIN	FFC Cable-flat
11	LOGIC + X-MAIN	FFC Cable-flat
12	LOGIC + LOGIC BUF (E)	FFC Cable-flat
13	LOGIC + LOGIC BUF (F)	FFC Cable-flat
14	LOGIC + LOGIC BUF (G)	FFC Cable-flat
15	LOGIC BUF (E) + LOG. BUF (F)	Lead connector
16	LOGIC BUF (F) + LOG. BUF (G)	Lead connector
17	SMPS + LOGIC BUF (E)	Lead connector
18	SMPS + LOGIC MAIN	Lead connector
19	SMPS + Y-MAIN	Lead connector
20	SMPS + X-MAIN	Lead connector

1.3.4 63" HD v4

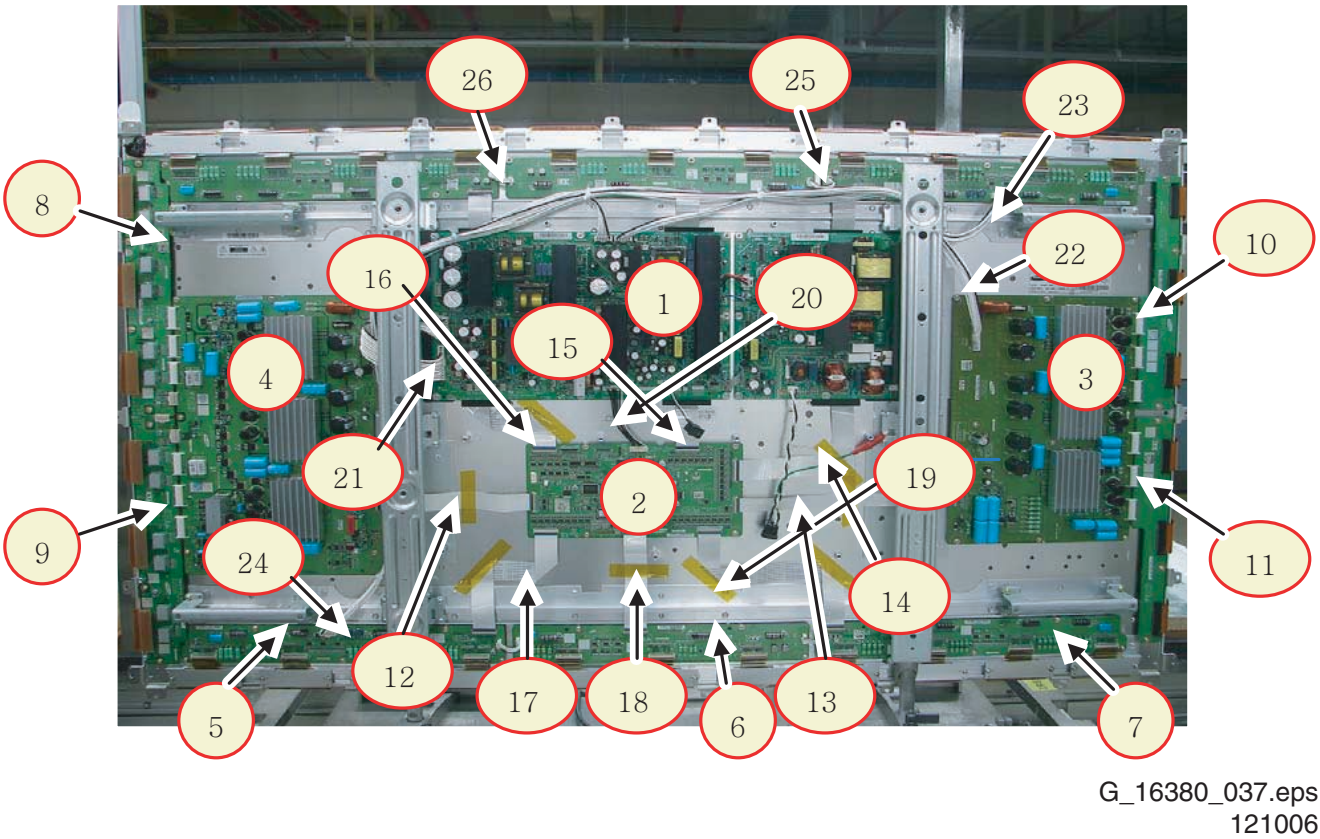


Figure 1-14 PWB location (63" HD v4)

Table 1-6 PWB overview (50" HD w1)

No.	Location	Name
1	SMPS	SMPS
2	LOGIC-MAIN Board	Assy PWB LOGIC Main
3	X-MAIN Driving Board	Assy PWB X Main
4	Y-MAIN Driving Board	Assy PWB Y Main
5	LOGIC E BUFFER Board	Assy PWB Buffer E
6	LOGIC F BUFFER Board	Assy PWB Buffer F
7	LOGIC G BUFFER Board	Assy PWB Buffer G
8	Y-BUFFER (Upper) Board	Assy PWB Buffer
9	Y-BUFFER (Lower) Board	Assy PWB Buffer
10	X-BUFFER (Upper) Board	Assy PWB Buffer
11	X-BUFFER (Lower) Board	Assy PWB Buffer
12	LOGIC + Y-MAIN	FFC Cable-flat
13	LOGIC + X-MAIN	FFC Cable-flat
14	LOGIC + LOGIC BUF upper (E)	FFC Cable-flat
15	LOGIC + LOGIC BUF upper (F)	FFC Cable-flat
16	LOGIC + LOGIC BUF upper (G)	FFC Cable-flat
17	LOGIC + LOGIC BUF lower (E)	FFC Cable-flat
18	LOGIC + LOGIC BUF lower (F)	FFC Cable-flat
19	LOGIC + LOGIC BUF lower (G)	FFC Cable-flat
20	SMPS + LOGIC MAIN	Lead connector
21	SMPS + Y-MAIN	Lead connector
22	SMPS + X-MAIN	Lead connector
23	SMPS + LOGIC BUF upper (E)	Lead connector
24	SMPS + LOGIC BUF lower (E)	Lead connector
25	LOGIC BUF (E) + LOG. BUF (F)	Lead connector
26	LOGIC BUF (F) + LOG. BUF (G)	Lead connector

2. Safety Instructions, Warnings, and Notes

Index of this chapter:

- 2.1 Handling Precautions
- 2.2 Safety Precautions
- 2.3 Notes

Notes:

- Only authorised persons should perform servicing of this module.
- When using/handling this unit, pay special attention to the PDP Module: it should not be enforced into any other way than next rules, warnings, and/or cautions.
- **"Warning"** indicates a hazard that may lead to death or injury if the warning is ignored and the product is handled incorrectly.
- **"Caution"** indicates a hazard that can lead to injury or damage to property if the caution is ignored and the product is handled incorrectly.

2.1 Handling Precautions

- The PDP module use high voltage that is dangerous to humans. Before operating the PDP, always check for dust to prevent short circuits. Be careful touching the circuit device when power is "on".
- The PDP module is sensitive to dust and humidity. Therefore, assembling and disassembling must be done in no dust place.
- The PDP module has a lot of electric devices. The service engineer must wear equipment (for example, earth ring) to prevent electric shock and working clothes to prevent electrostatic.
- The PDP module use a fine pitch connector which is only working by exactly connecting with flat cable. The operator must pay attention to a complete connection when connector is reconnected after repairing.
- The capacitor's remaining voltage in the PDP module's circuit board temporarily remains after power is "off". Operator must wait for discharging of remaining voltage during at least 1 minute.

2.2 Safety Precautions

2.2.1 Safety Precautions

- Before replacing a board, discharge forcibly the remaining electricity from the board.
- When connecting FFC and TCPs to the module, recheck that they are perfectly connected.
- To prevent electrical shock, be careful not to touch leads during circuit operations.
- To prevent the Logic circuit from being damaged due to wrong working, do not connect/disconnect signal cables during circuit operations.
- Do thoroughly adjustment of a voltage label and voltage-insulation.
- Before reinstalling the chassis and the chassis assembly, be sure to use all protective stuff including a nonmetal controlling handle and the covering of partitioning type.
- Caution for design change: Do not install any additional devices to the module, and do not change the electrical circuit design.
- For example: Do not insert a subsidiary audio or video connector. If you insert It, it cause danger on safety. And, if you change the design or insert, manufacturer guarantee will be not effect.
- If any parts of wire is overheats of damaged, replace it with a new specified one immediately, and identify the cause of the problem and remove the possible dangerous factors.
- Examine carefully the cable status if it is twisted or damaged or displaced. Do not change the space between

parts and circuit board. Check the cord of AC power preparing damage.

- Product Safety Mark: Some of electric or implement material have special characteristics invisible that was related on safety. In case of the parts are changed with new one, even though the Voltage and Watt is higher than before, the Safety and Protection function will be lost.
- The AC power always should be turned "off", before next repair.
- Check assembly condition of screw, parts and wire arrangement after repairing. Check whether the material around the parts get damaged.

2.2.2 ESD Precautions

There are parts, which are easily damaged by electrostatics (for example Integrated Circuits, FETs, etc.) Electrostatic damage rate of product will be reduced by the following technics:

- Before handling semiconductor parts/assembly, must remove positive electric by ground connection, or must wear the antistatic wrist-belt and ring (it must be operated after removing dust on it. It comes under precaution of electric shock).
- After removing the assembly, lay it with the tracks on a conductive surface to prevent charging.
- Do not use chemical stuff containing Freon. It generates positive electric that can damage ESD sensitive devices.
- You must use a soldering device for ground-tip when soldering or de-soldering these devices.
- You must use anti-static solder removal device. Most removal devices do not have antistatic which can charge a enough positive electric enough for damaging these devices.
- Before removing the protective material from the lead of a new device, bring the protective material into contact with the chassis or assembly.
- When handing an unpacked device for replacement, do not move around too much. Moving (legs on the carpet, for example) generates enough electrostatic to damage the device.
- Do not take a new device from the protective case until the it is ready to be installed. Most devices have a lead, which is easily short-circuited by conductive materials (such as conductive foam and aluminium)

2.3 Notes

A glass plate is positioned before the plasma display. This glass plate can be cleaned with a slightly humid cloth. If due to circumstances there is some dirt between the glass plate and the plasma display panel, it is recommended to do some maintenance by a qualified service employee only.

2.3.1 Safe PDP Handling

- The work procedures shown with the "Note" indication are important for ensuring the safety of the product and the servicing work. Be sure to follow these instructions.
- Before starting the work, secure a sufficient working space.
- At all times, other than when adjusting and checking the product, be sure to turn "off" the main POWER switch and disconnect the power cable from the power source of the display (jig or the display itself) during servicing.
- To prevent electric shock and breakage of PWBs, start the servicing work at least 30 seconds after the main power has been turned "off". Especially when installing and removing the Power Supply PWB and the SUS PWB in which high voltages are applied, start servicing at least 2 minutes after the main power has been turned "off".

- While the main power is “on”, do not touch any parts or circuits other than the ones specified. The high voltage Power Supply block within the PDP module has a floating ground. If any connection other than the one specified is made between the measuring equipment and the high voltage power supply block, it can result in electric shock or activation of the leakage-detection circuit breaker.
- When installing the PDP module in, and removing it from the packing carton, be sure to have at least two persons perform the work while being careful to ensure that the flexible printed-circuit cable of the PDP module does not get caught by the packing carton.
- When the surface of the panel comes into contact with the cushioning materials, be sure to confirm that there is no foreign matter on top of the cushioning materials before the surface of the panel comes into contact with the cushioning materials. Failure to observe this precaution may result in, the surface of the panel being scratched by foreign matter.
- When handling the circuit PWB, be sure to remove static electricity from your body before handling the circuit PWB.
- Be sure to handle the circuit PWB by holding the large parts as the heat sink or transformer. Failure to observe this

precaution may result in the occurrence of an abnormality in the soldered areas.

- Do not stack the circuit PWB. Failure to observe this precaution may result in problems resulting from scratches on the parts, the deformation of parts, and short-circuits due to residual electric charge.
- Routing of the wires and fixing them in position must be done in accordance with the original routing and fixing configuration when servicing is completed. All the wires are routed far away from the areas that become hot (such as the heat sink). These wires are fixed in position with the wire clamps so that the wires do not move, thereby ensuring that they are not damaged and their materials do not deteriorate over long periods of time. Therefore, route the cables and fix the cables to the original position and states using the wire clamps.
- Perform a safety check when servicing is completed. Verify that the peripherals of the serviced points have not undergone any deterioration during servicing. Also verify that the screws, parts and cables removed for servicing purposes have all been returned to their proper locations in accordance with the original

3. Directions For Use

Not applicable.

4. Mechanical Instructions

Index of this chapter:

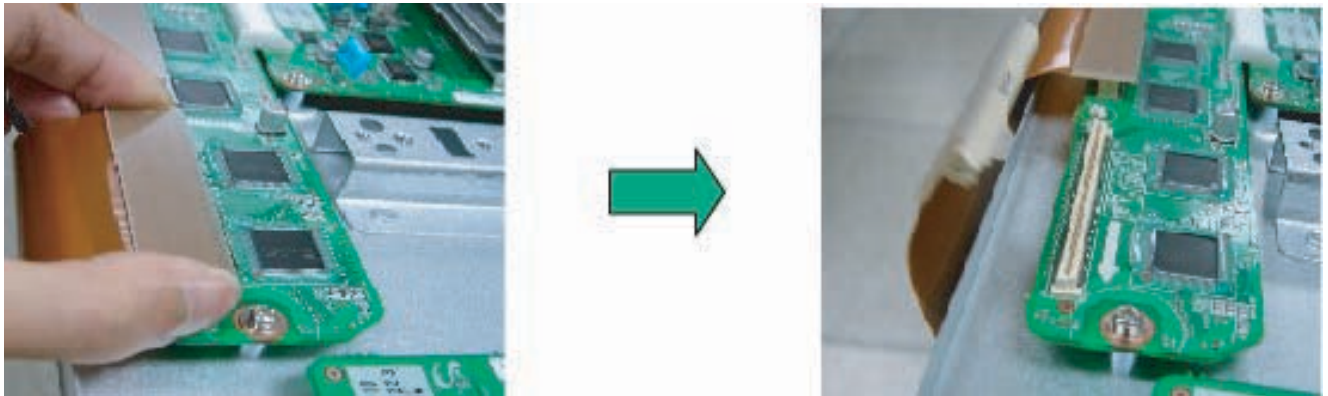
- 4.1 Dis-assembling / Re-assembling
 - 4.1.1 Flexible Printed Circuit of Y-Buffer (Upper and Lower)
 - 4.1.2 Flat Cable Connector of X-main Board
 - 4.1.3 FFC and TCP from Connector
 - 4.1.4 Exchange of LBE and LBF board - 42" SD v5
 - 4.1.5 Exchange of LBE and LBF board - 42" HD w1
 - 4.1.6 Exchange of LBE, LBF and LBG board - 50" HD w1
 - 4.1.7 Exchange of LB-E, LB-F and LB-G board - 63" HD v4
 - 4.1.8 Exchange YB and YM board - 42" SD v5
 - 4.1.9 Exchange YB and YM board - 42" HD w1
 - 4.1.10 Exchange YBU, YBL and YM board - 50" HD w1
 - 4.1.11 Exchange YBU, YBL and YM board - 63" HD v4

4.1 Dis-assembling / Re-assembling

4.1.1 Flexible Printed Circuit of Y-Buffer (Upper and Lower)

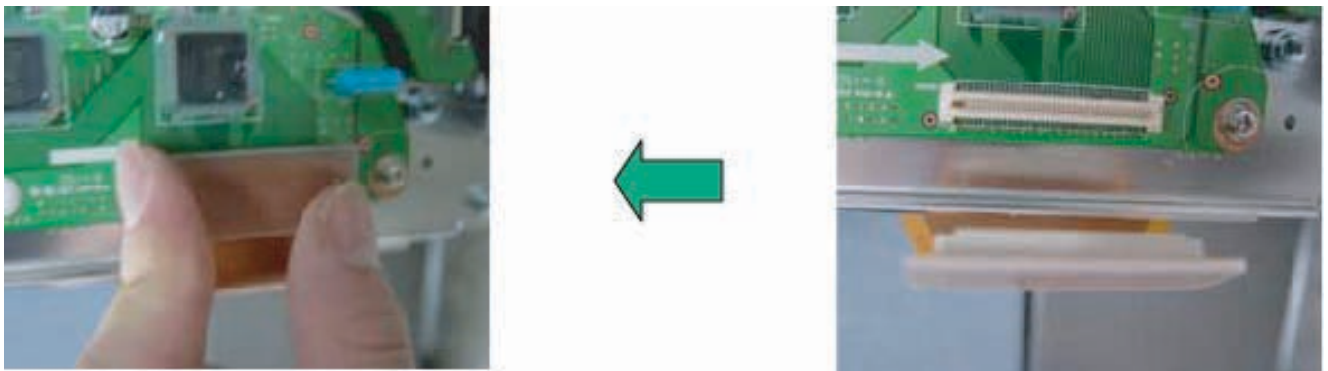
- Dis-assembly: Pull out the FPC from the connector by holding the lead of the FPC with both hands.
- Re-assembly: Push the lead of FPC with same force on both sides into the connector.

Note: Be careful not to damage the connector pin during connecting.



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Figure 4-1 Dis-assembly FPC of Y-buffer

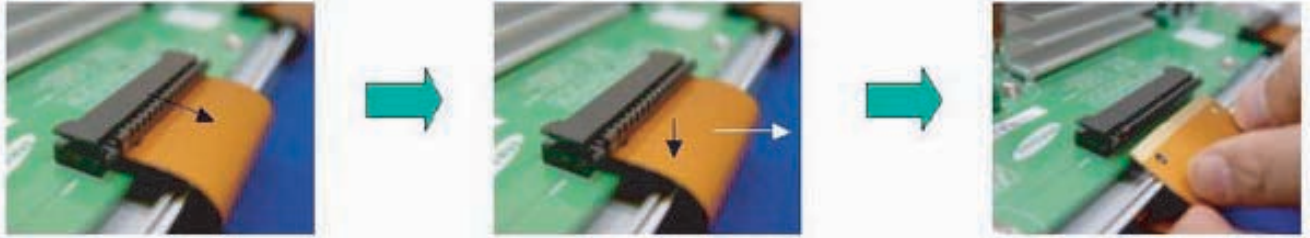


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Figure 4-2 Re-assembly FPC of Y-buffer

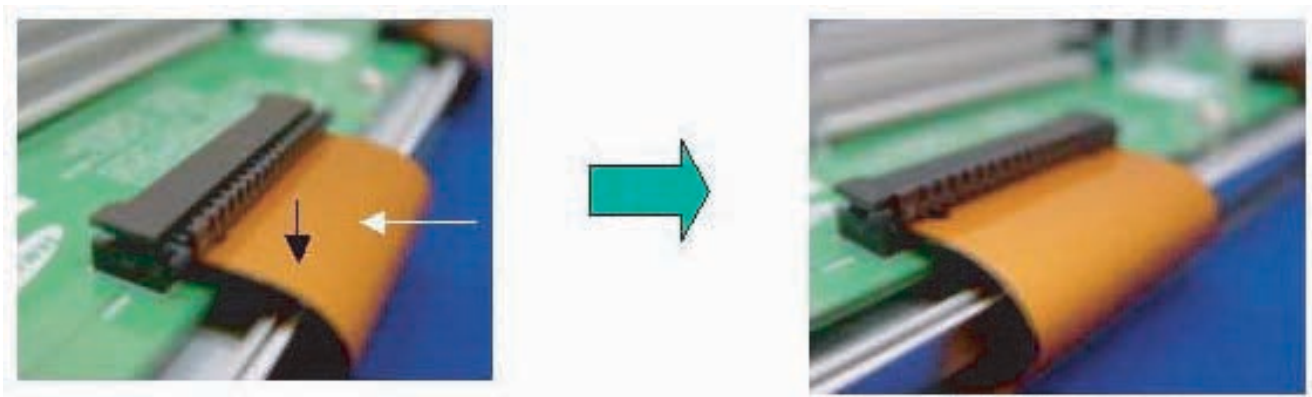
4.1.2 Flat Cable Connector of X-main Board

- Dis-assembly:
 1. Pull out the clamp of connector.
 2. Pull Flat cable out press down lightly.
 3. Turn the Flat Cable reversely.
- Re-assembly: Put the Flat Cable into the connector press down lightly until you hear a "Click".



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Figure 4-3 Dis-assembly FCC of X-main board



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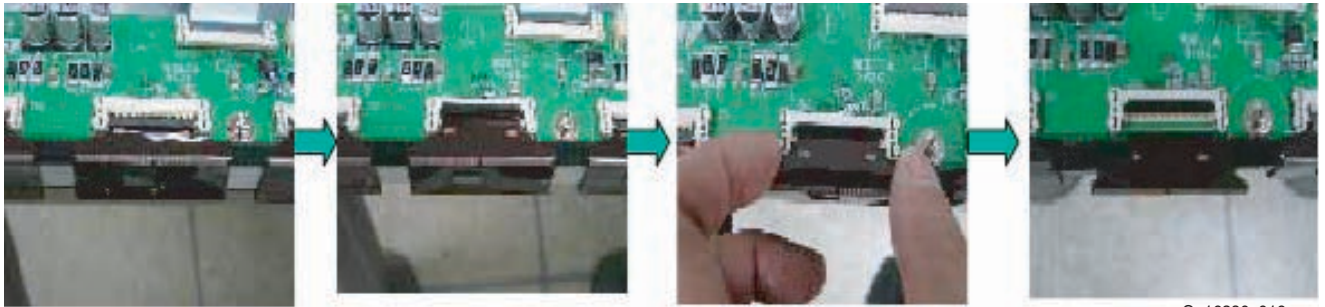
Figure 4-4 Re-assembly FCC of X-main board

4.1.3 FFC and TCP from Connector

- Dis-assembling of TCP:
 1. Open the clamp carefully.
 2. Pull the TCP out from its connector.
- Re-assembling of TCP:
 1. Put the TCP into the connector carefully
 2. Close the clamp completely, until you hear a "Click".

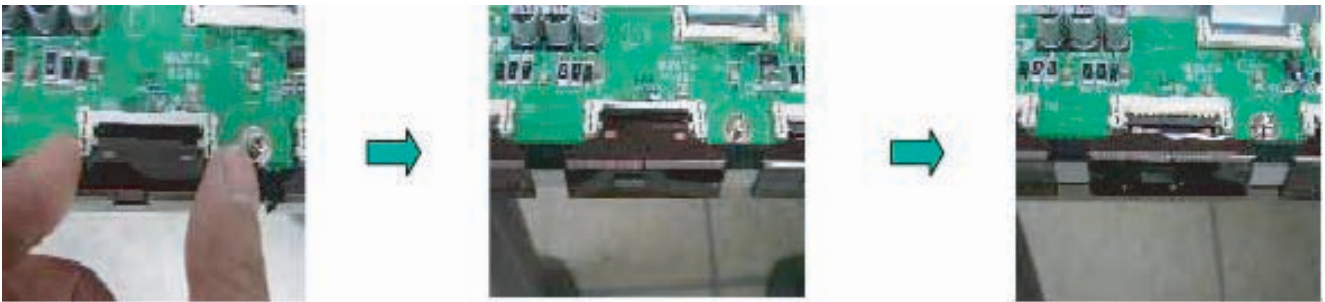
Notes:

- Checking whether the foreign material is on the connector inside before assembling of TCP.
- Be careful, do not damage the board by ESD during handling of TCP.



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Figure 4-5 Dis-assembly of TCP



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Figure 4-6 Re-assembly of TCP



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Figure 4-7 Mis-assembly of TCP



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Figure 4-8 Dis- and re-assembly of FFC

4.1.4 Exchange of LBE and LBF board - 42" SD v5

1. Remove the screws in order of 1-3-2 from the heatsink and remove the heatsink ("Photos 1 & 3")
2. Remove the TCP, FFC, and the power cable from the connectors.
3. Remove all the screws from the defective board ("Photo 2").
4. Remove the defective board.
5. Place the new board and screw it tight.
6. Clean the connectors.
7. Re-connect the TCP, FFC, and the power cable to the connectors.
8. Re-assemble the TCP heat sink. Use the screw mounting order 2-3-1.

Caution: If you screw too tight, it is possible to damage the Driver IC of the TCP.

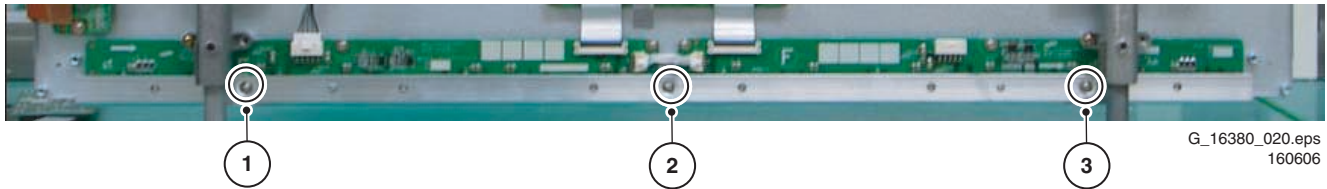


Figure 4-9 Photo 1 - Heatsink 42" SD v5

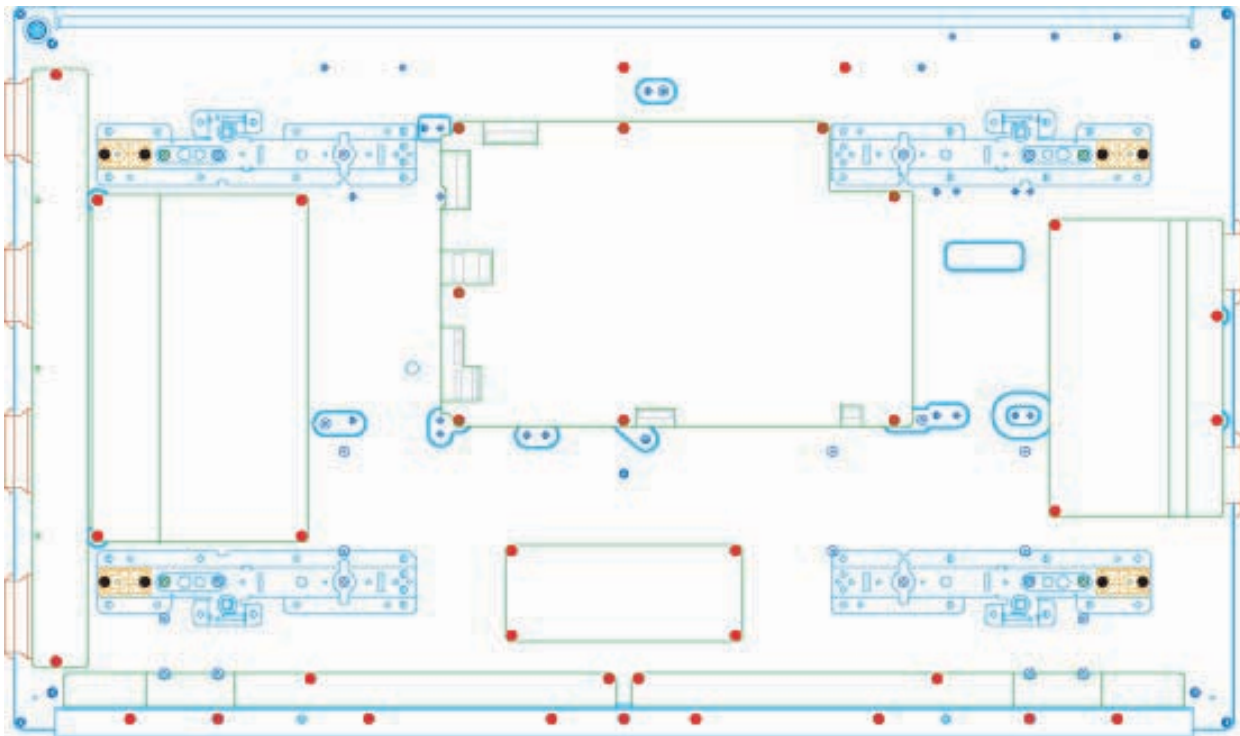


Figure 4-10 Photo 2 - Exchange of LBE and LBF board 42" SD v5

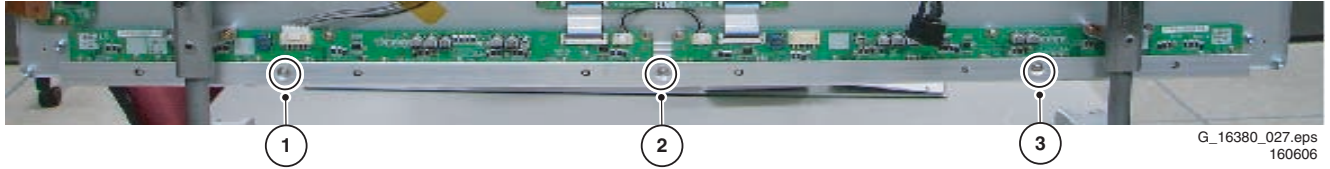


Figure 4-11 Photo 3 - Heat sink removal

4.1.5 Exchange of LBE and LBF board - 42" HD w1

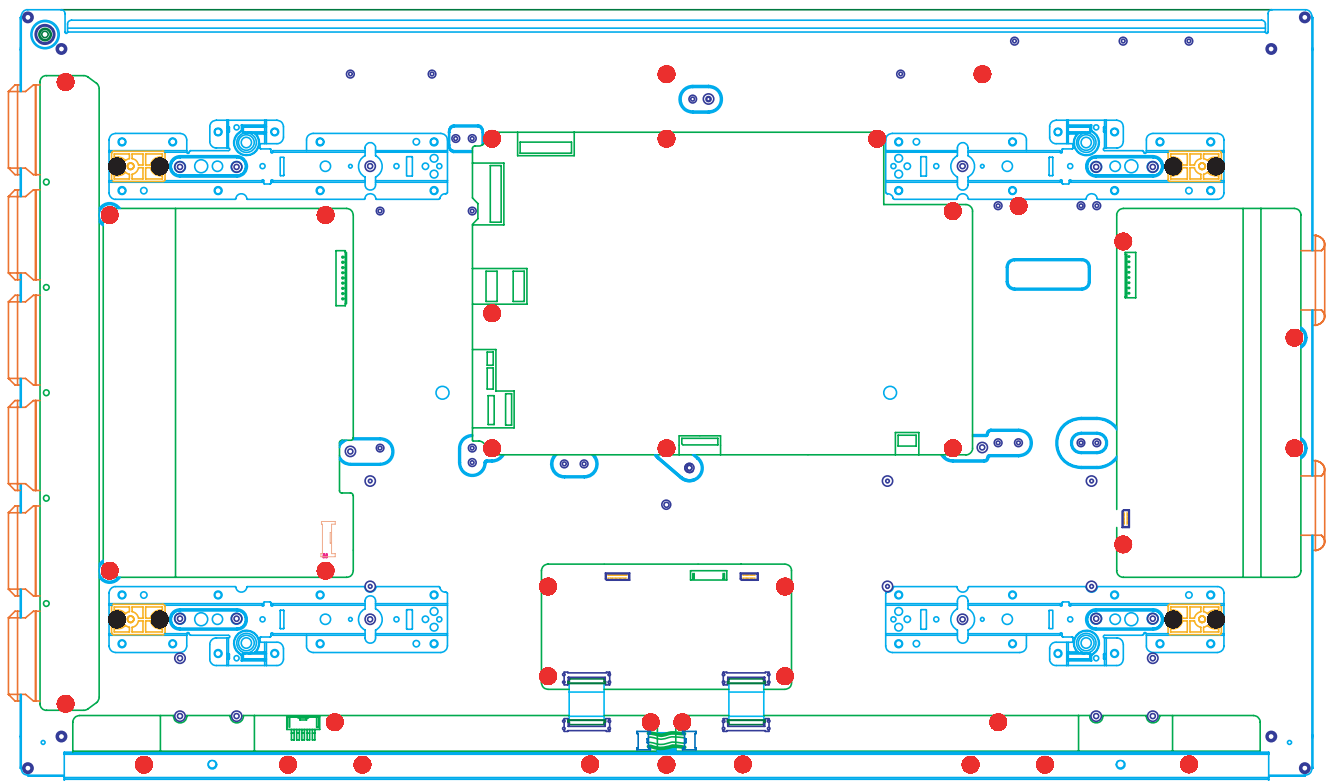
1. Remove the screws in order of 1-3-2 from the heatsink and remove the heatsink ("Photos 1 & 3").
2. Remove the TCP, FFC, and power cable from the connectors.
3. Remove all the screws from the defective board.
4. Remove the defective board.
5. Place the new board and then screw tightly.
6. Clean the connectors.
7. Re-connect the TCP, FFC, and power cable to the connectors.
8. Re-assemble the TCP heat sink. Use the screw mounting order 2-1-3.

Caution: If you screw too tight, it is possible to damage the Driver IC of the TCP.



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Figure 4-12 Photo 1 - Heatsink 42" HD w1



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Figure 4-13 Photo 2 - Exchange of LBE, LBF board 42" HD w1



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Figure 4-14 Photo 3 - Heat sink removal

4.1.6 Exchange of LBE, LBF and LBG board - 50" HD w1

1. Remove the screws in order of 2-3-1-4 from the heatsink and remove the heatsink ("Photo 3").
2. Remove the TCP, FFC, and power cable from the connectors.
3. Remove all the screws from the defective board.
4. Remove the defective board.
5. Replace the new board and then screw tightly.
6. Clean the connectors.
7. Re-connect the TCP, FFC, and power cable to the connectors.
8. Re-assemble the TCP heat sink. Use the same screw mounting order as described above

Caution: If you screw too tight, it is possible to damage the Driver IC of the TCP.



Figure 4-15 Photo 1 - Heatsink 50" HD w1

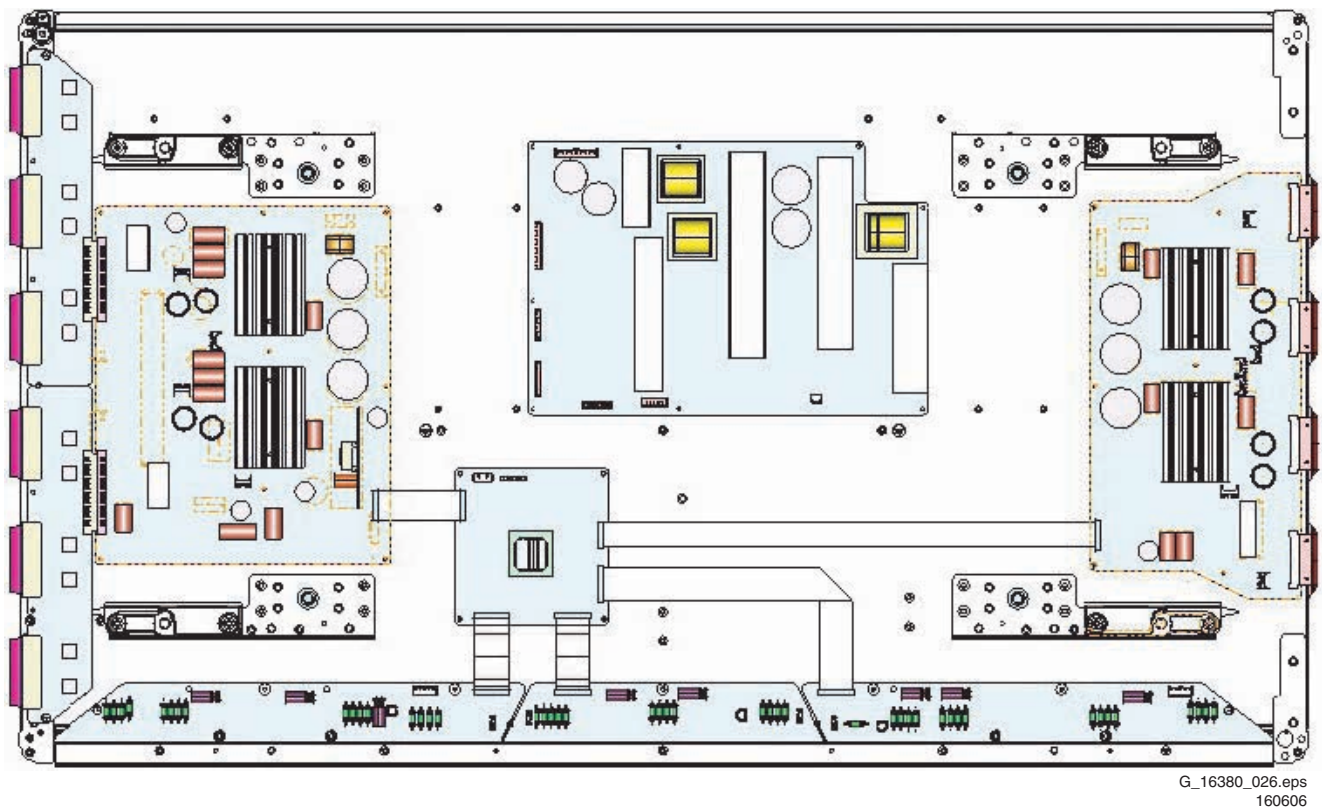


Figure 4-16 Photo 2 - Exchange of LBE, LBF, LBG board 50" HD w1



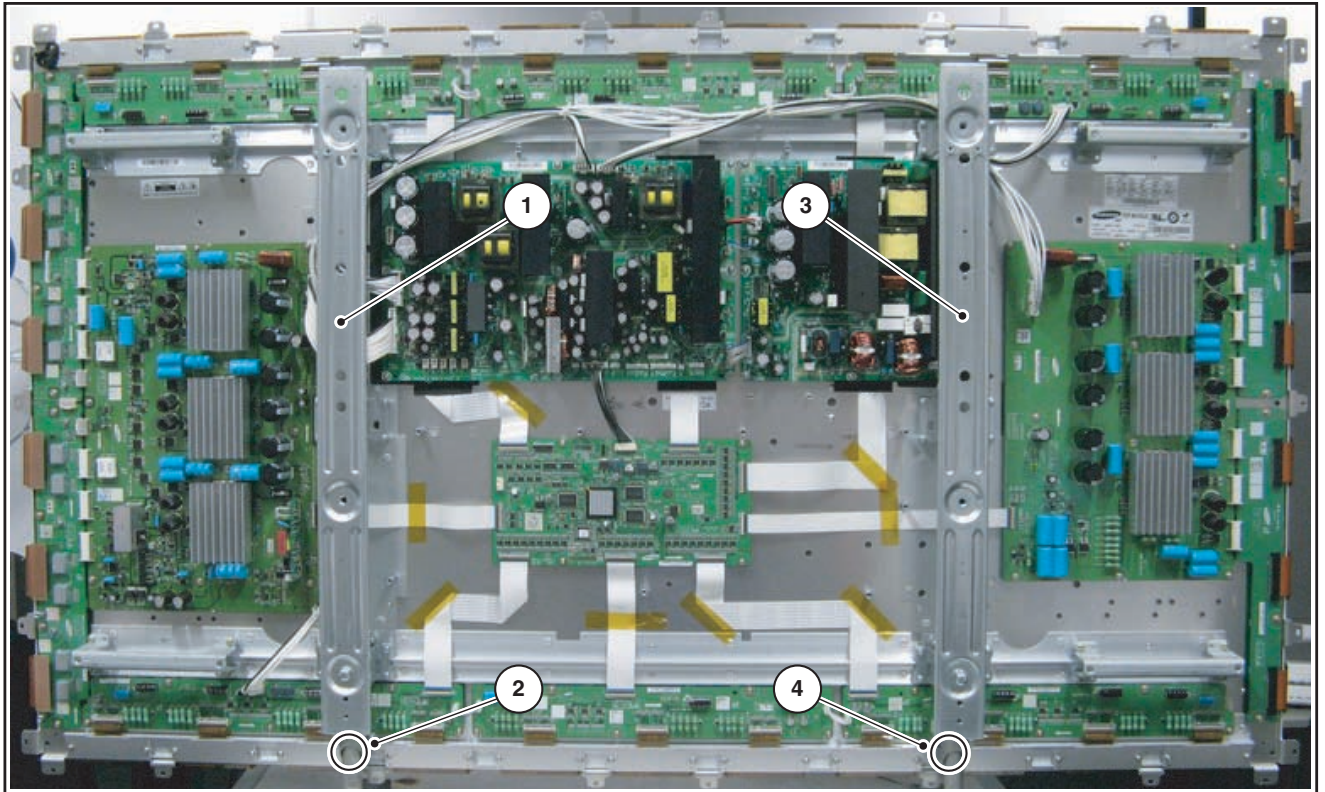
Figure 4-17 Photo 3 - Heat sink removal

4.1.7 Exchange of LB-E, LB-F and LB-G board - 63" HD v4

1. Refer to the Service Manual of the set to strip it so far, you have access to the Logic Buffer board that you need to replace.
2. For the lower LB-E, remove brackets [1] and [2]; for the lower LB-G, remove brackets [3] and [4]. For both LB-F's and the upper LB-E and LB-G you do not need to remove these brackets.

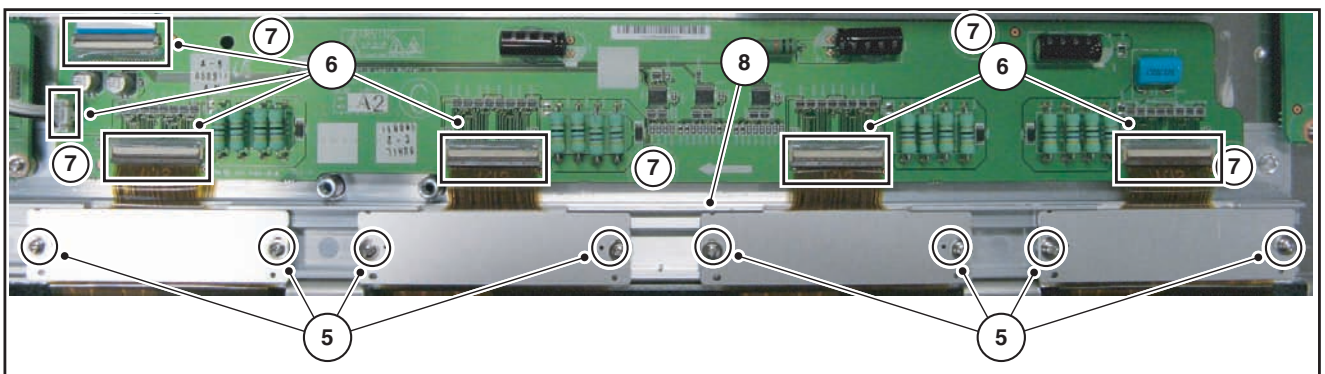
Note: The following description is correct for the lower LBG; the replacement procedure of the other LB's is similar.

3. Remove the fixation screws [5] from the TPC heatsinks of the defective board.
4. Unplug the TPC, FFC, and power cable(s) from the connectors [6].
5. Remove the fixation screws from the defective board [7].
6. Remove the defective board.
7. Replace the new board and then screw tightly.
8. Clean the connectors.
9. Re-connect the TCP, FFC, and power cable to the connectors.
10. Re-assemble the TCP heat sinks. Slide the heatsink against strip [8] before you tighten it.



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Figure 4-18 Brackets 63" HD v4

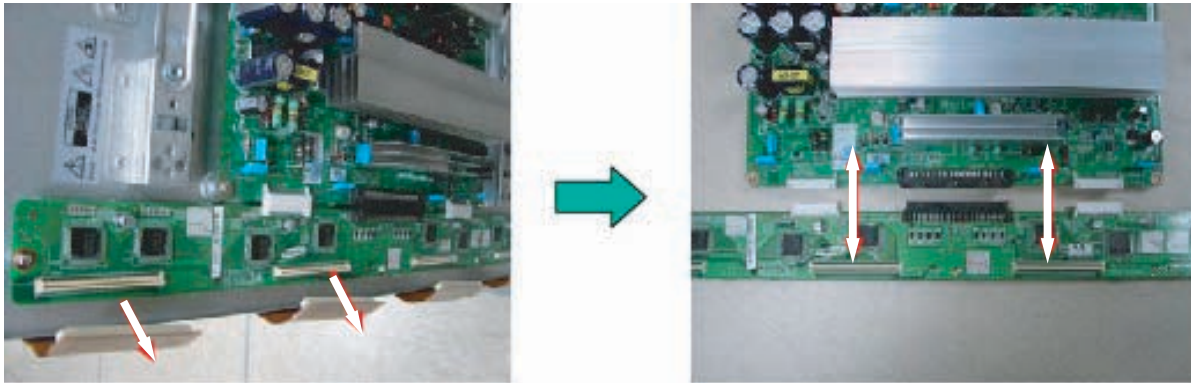


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Figure 4-19 Exchange of lower LB-G board 63" HD v4

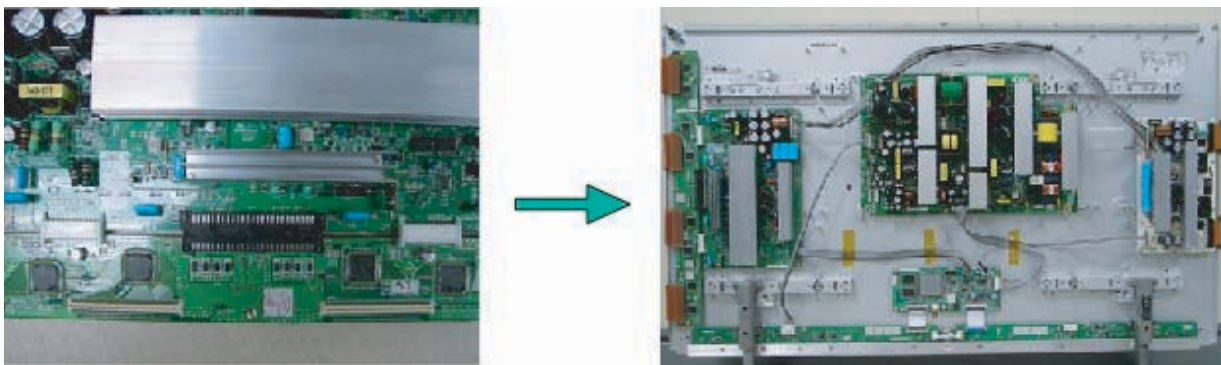
4.1.8 Exchange YB and YM board - 42" SD v5

1. Unplug all of the FPC connectors of Y-Buffer. See "Photo 1".
2. Unplug connectors CN5001 and CN5008 from Y-Main. See "Photo 2".
3. Loosen all the screws of Y-Buffer and Y-Main. See "Photo 3".
4. Remove the board from the chassis.
5. Unplug connectors CN5003, CN5004 and CN5005 between Y-Buffer and Y-Main.
6. Remove Y-Buffer from Y-main.
7. Replace the defective board.
8. Re-assemble Y-Buffer and Y-Main.
9. Plug in connectors CN5003, CN5004 and CN5005 between Y-Buffer and Y-Main. See "Photo 4".
10. Arrange the boards on the chassis and tighten them.
11. Connect the FPC connectors. See "Photo 5".
12. Supply the electric power to the module and then check the waveform of the board.
13. Turn "off" the power after the waveform is adjusted.



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Figure 4-20 Photo 1 and 2: Dis-assembly of YB and YM - 42" SD v5



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Figure 4-21 Photo 3 and 4: Re-assembly of YB and YM - 42" SD v5

4.1.9 Exchange YB and YM board - 42" HD w1

1. Unplug all of the FPC connectors of Y-Buffer. See "Photo 1".
2. Loosen all the screws of Y-Buffer and Y-Main. See "Photo 3".
3. Remove the board from the chassis.
4. Unplug connectors CN5004, CN5011 and CN5012 between Y-Buffer and Y-Main.
5. Remove Y-Buffer from Y-main.
6. Replace the defective board.
7. Re-assemble Y-Buffer and Y-Main.
8. Plug in connectors CN5004, CN5011 and CN5012 between Y-Buffer and Y-Main. See "Photo 4".
9. Arrange the boards on the chassis and tighten them.
10. Connect the FPC connectors.
11. Supply the electric power to the module and then check the waveform of the board.
12. Turn "off" the power after the waveform is adjusted.

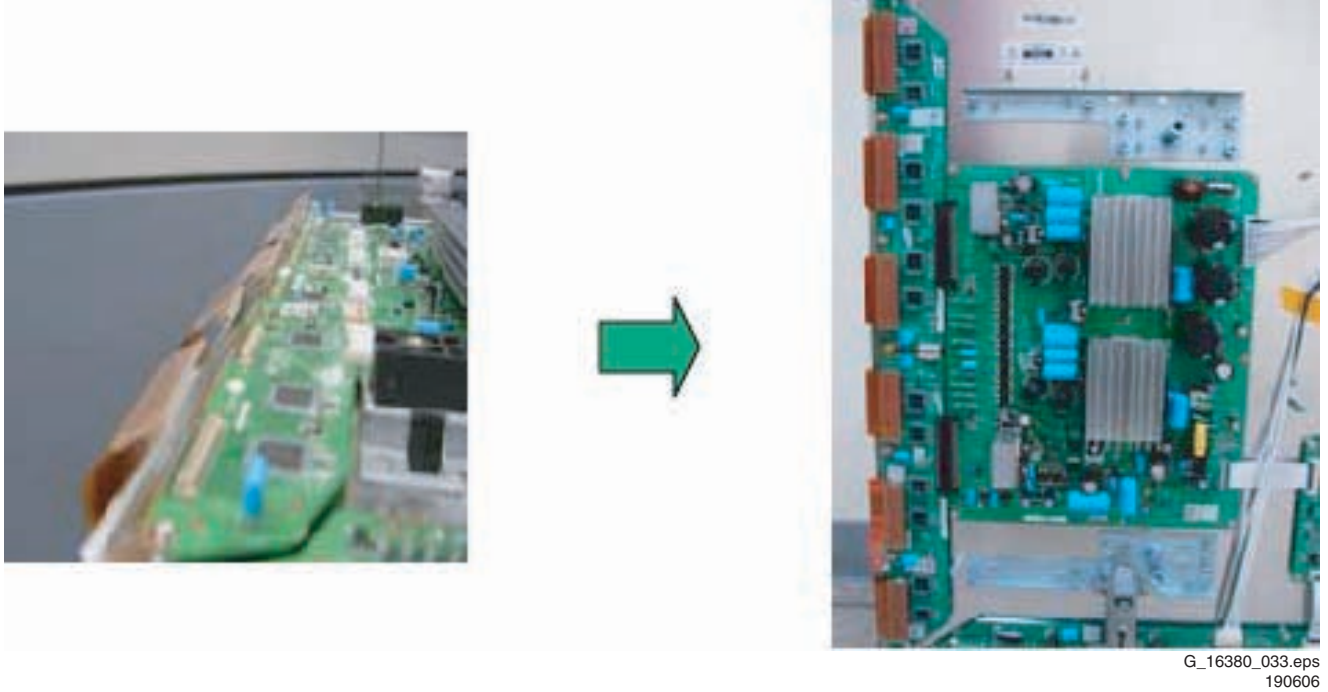
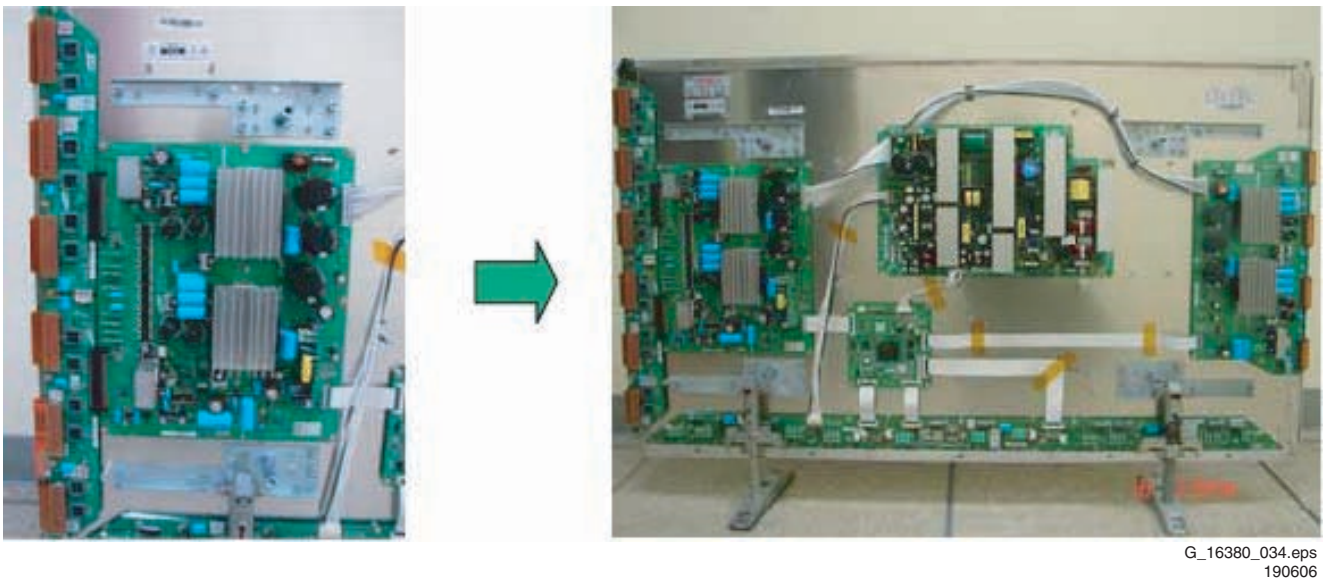


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Figure 4-22 Photo 1 and 2: Dis-assembly of YBU, YBL, and YM - 42" HD w1

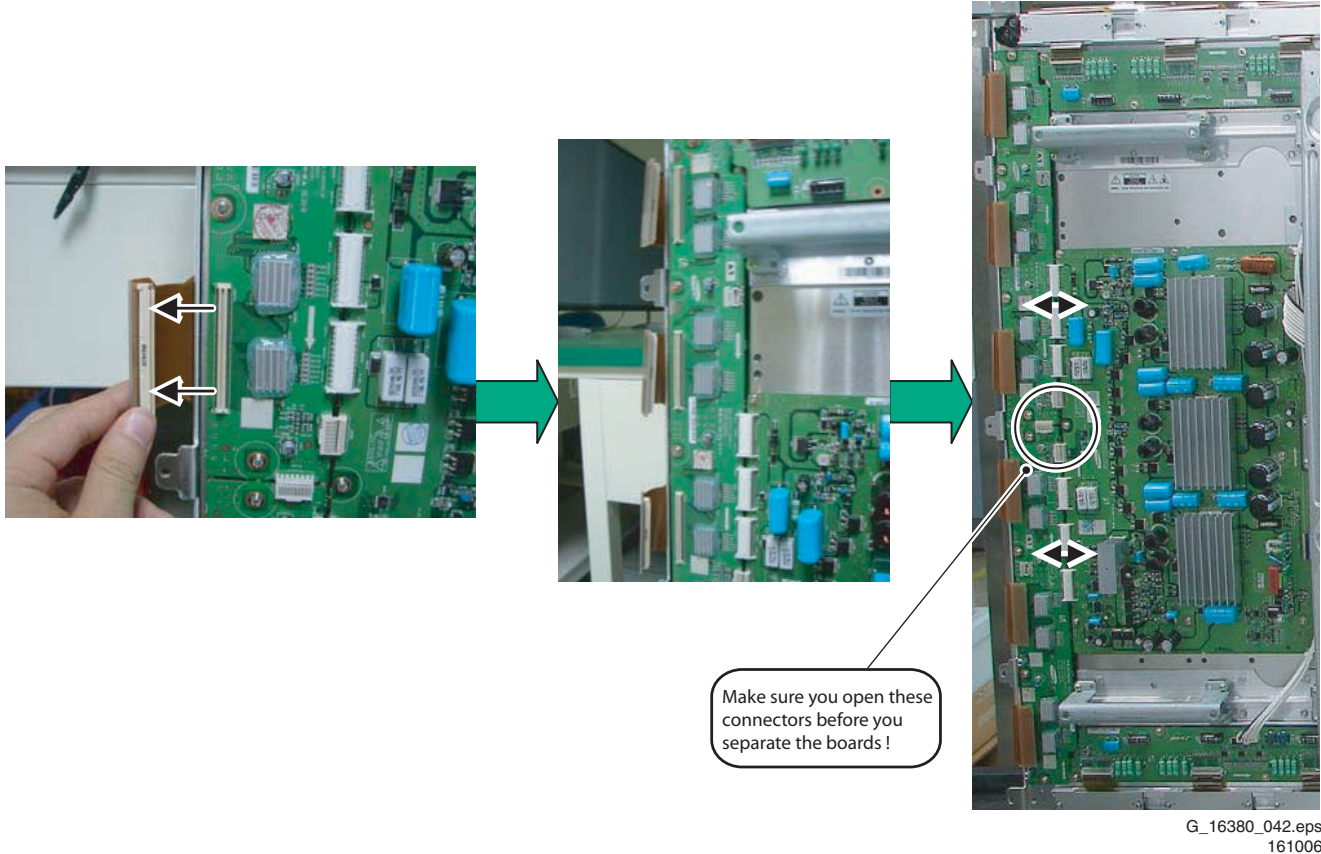
4.1.10 Exchange YBU, YBL and YM board - 50" HD w1

1. Unplug all of the FPC connectors of YBU (Y-Buffer upper) and YBL (Y-Buffer lower). See "Photo 1".
2. Unplug the connector CN5412 between YBU and YBL.
3. Loosen all the screws of YBU, YBL, and Y-Main.
4. Remove the board from the chassis.
5. Remove the YBL and YBU from Y-main.
6. Replace the defective board.
7. Re-assemble the YBU and YBL to the Y-Main.
8. Plug in connector CN5412 between YBU and YBL.
9. Arrange the board on the chassis and then screw to fix.
10. Connect the FPCs.
11. Supply the electric power to the module and then check the waveform of the board.
12. Turn "off" the power after the waveform is adjusted.

**Figure 4-23 Photo 1 and 2: Dis-assembly of YBU, YBL, and YM - 50" HD w1****Figure 4-24 Photo 3 and 4: Re-assembly of YBU, YBL, and YM - 50" HD w1**

4.1.11 Exchange YBU, YBL and YM board - 63" HD v4

1. Unplug power connector CN5010 and signal connector CN5002 from Y-Main. See "Photo 1".
2. Unplug all FPC connectors of YBU (Y-Buffer upper) and YBL (Y-Buffer lower). See "Photo 1".
3. Open the connectors CN5001/CN5406 between YM and YBU, and CN5000/CN5506 between YM and YBL.
4. Loosen all the screws of YBU, YBL, and Y-Main.
5. Remove the boards from the chassis.
6. Open the connectors CN5410/CN5510 between YBU and YBL.
7. Separate the YBL and YBU from Y-main.
8. Replace the defective board.
9. Re-assemble the YBU and YBL to the Y-Main.
10. Plug in the connectors between YBU, YBL and YM.
11. Arrange the board on the chassis and then screw to fix.
12. Reconnect the FPCs.
13. Supply the electric power to the module and then check the waveform of the board.
14. Turn "OFF" the power after the waveform is adjusted.



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Figure 4-25 Photo 1: Dis-assembly of YBU, YBL, and YM - 63" HD v4

5. Service Modes, Error Codes, and Fault Finding

Index of this chapter:

- 5.1 Repair Tools
 - 5.1.1 ComPair
 - 5.1.2 Other Service Tools
- 5.2 Fault Finding
 - 5.2.1 Possible Scenarios
 - 5.2.2 Faulty Power Supply
 - 5.2.3 No Display
 - 5.2.4 Abnormal display
 - 5.2.5 Horizontal line or block open
 - 5.2.6 Address open
 - 5.2.7 Address short
 - 5.2.8 Criteria for Panel Replacement, due to Defective Panel Cells
 - 5.2.9 Overview
- 5.3 Defect Description Form

5.1 Repair Tools

5.1.1 ComPair

For the v5 and w1 models, it will be possible to generate test patterns with ComPair. The ComPair interface must be connected to the Logic Board with the special interconnection cable (see table below for the order code).

5.1.2 Other Service Tools

Table 5-1 Overview Service tools

Service Tools	Order Code
ComPair / SDI interconnection cable	3122 785 90800
Foam buffers (2 pcs.)	3122 785 90581

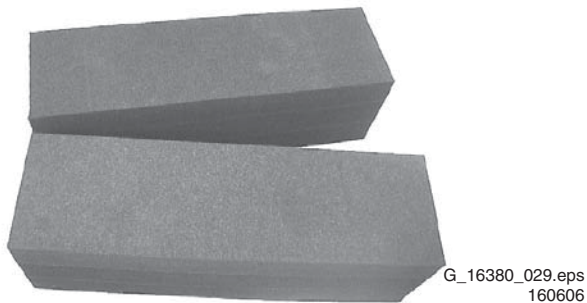


Figure 5-1 Foam buffers

5.2 Fault Finding

5.2.1 Possible Scenarios

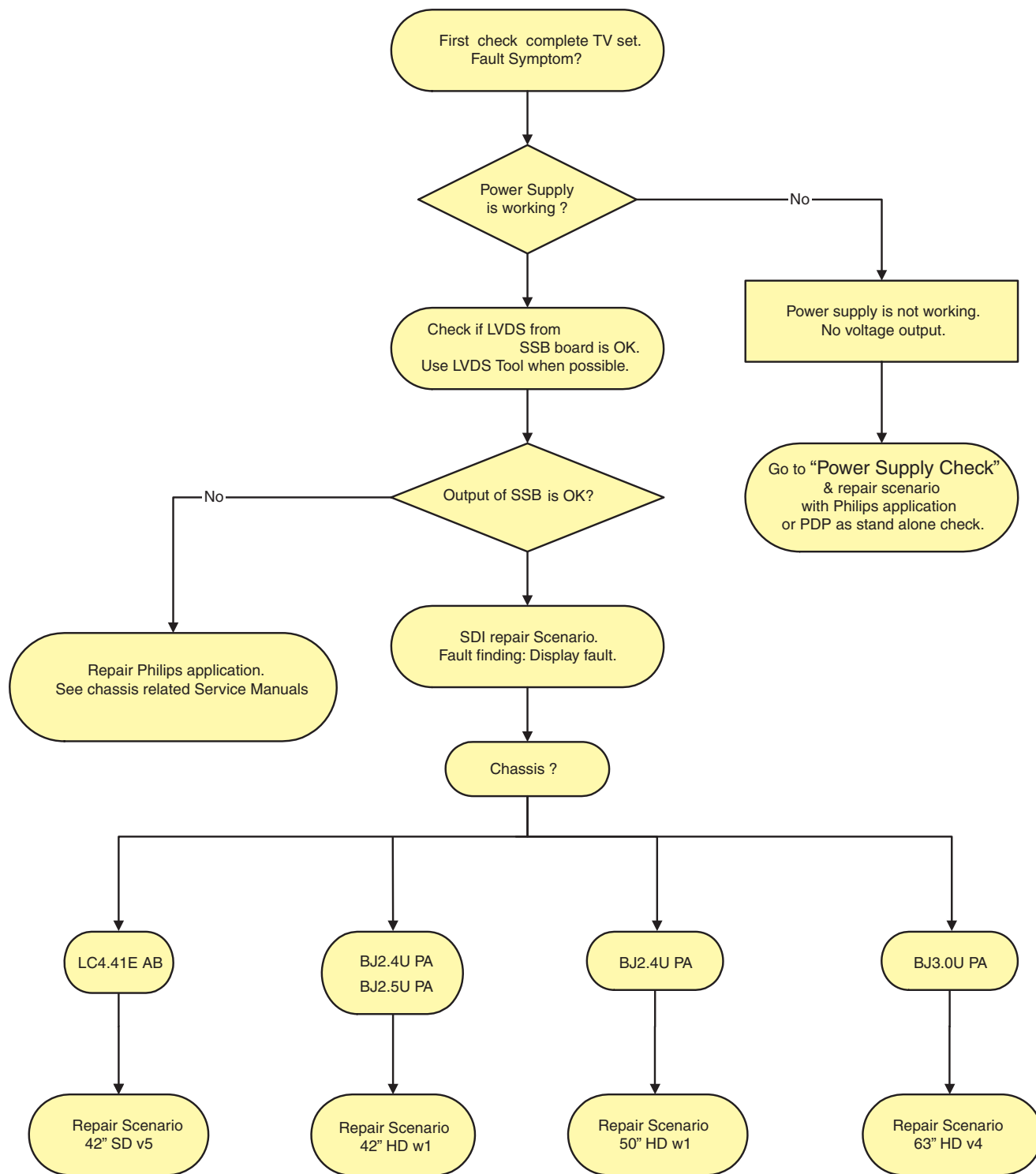


Figure 5-2 Which repair scenario?

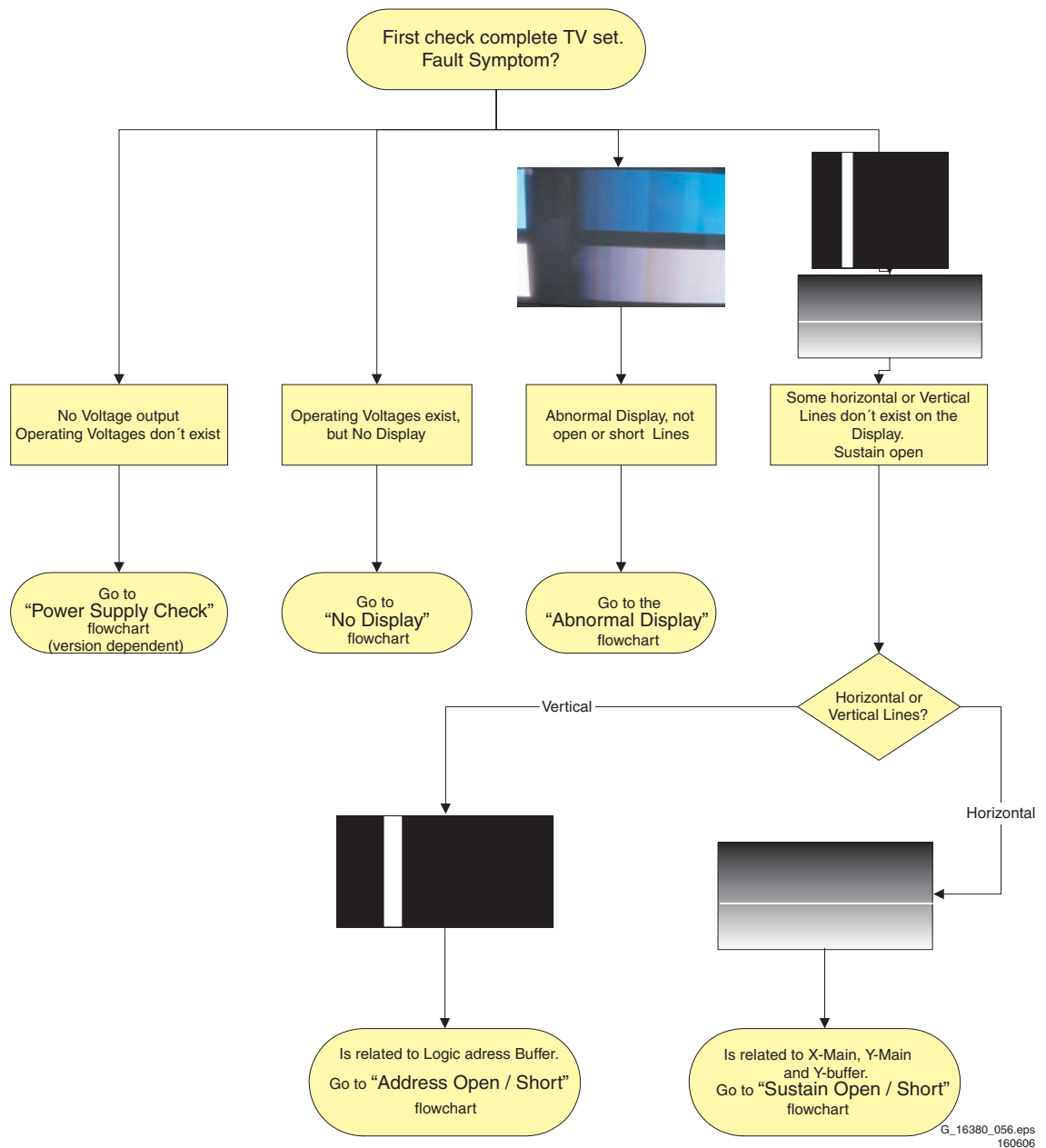


Figure 5-3 Fault symptom overview (complete TV set)

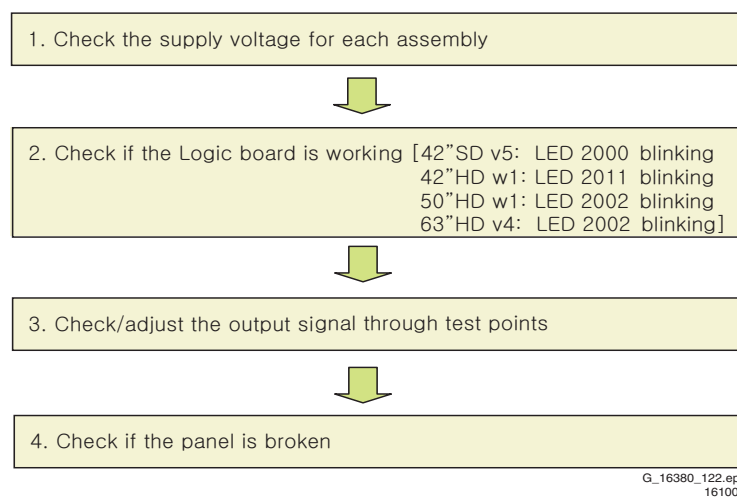


Figure 5-4 Repair scenario stand alone panels

5.2.2 Faulty Power Supply

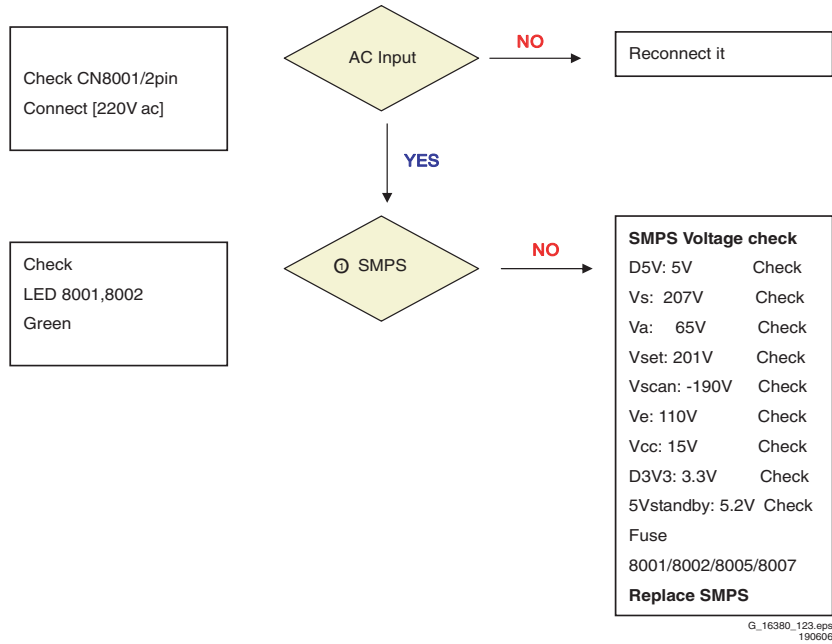


Figure 5-5 Power Supply Check for 42" SD v5 models 1/2

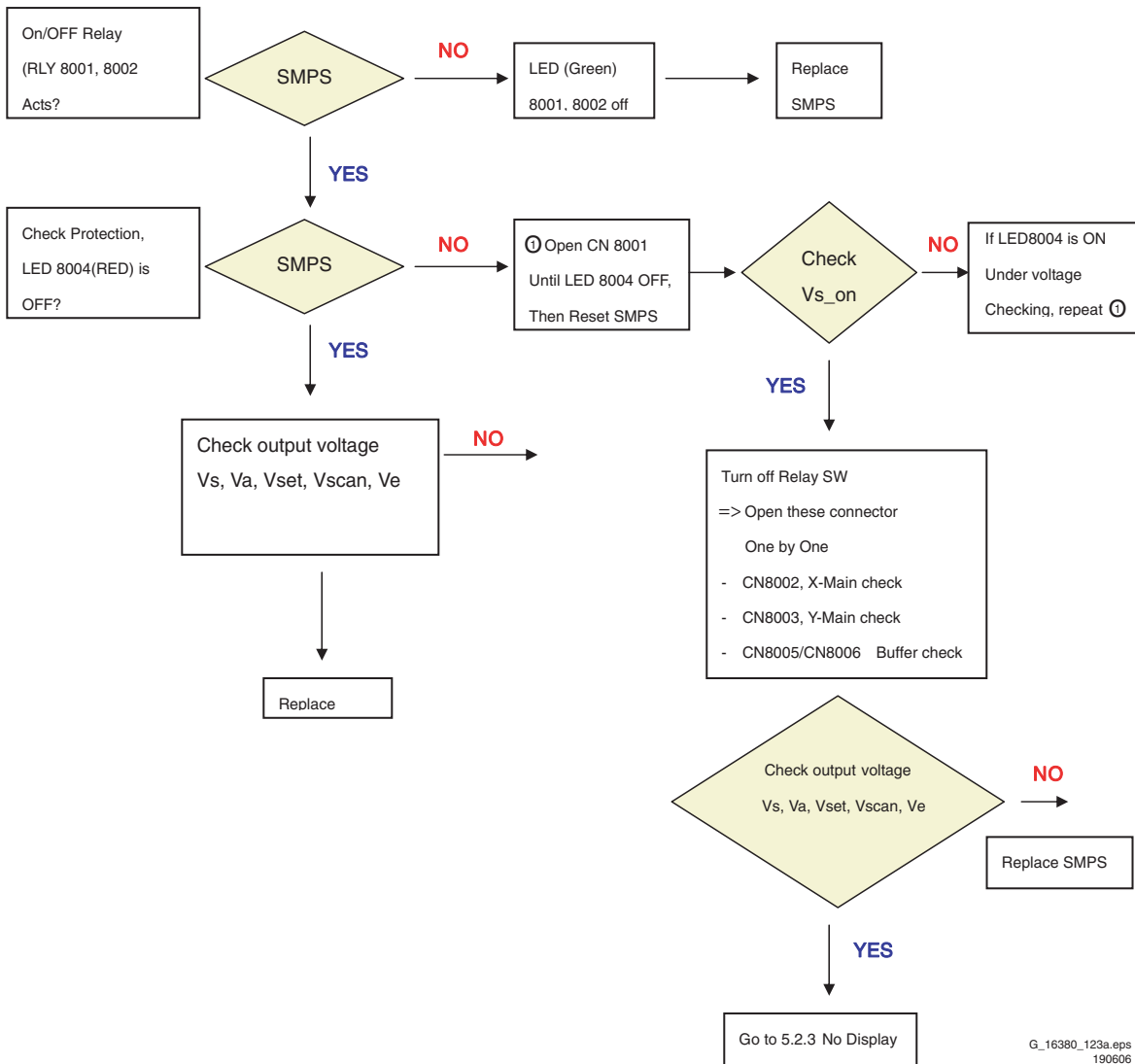


Figure 5-6 Power Supply Check for 42" SD v5 models 2/2

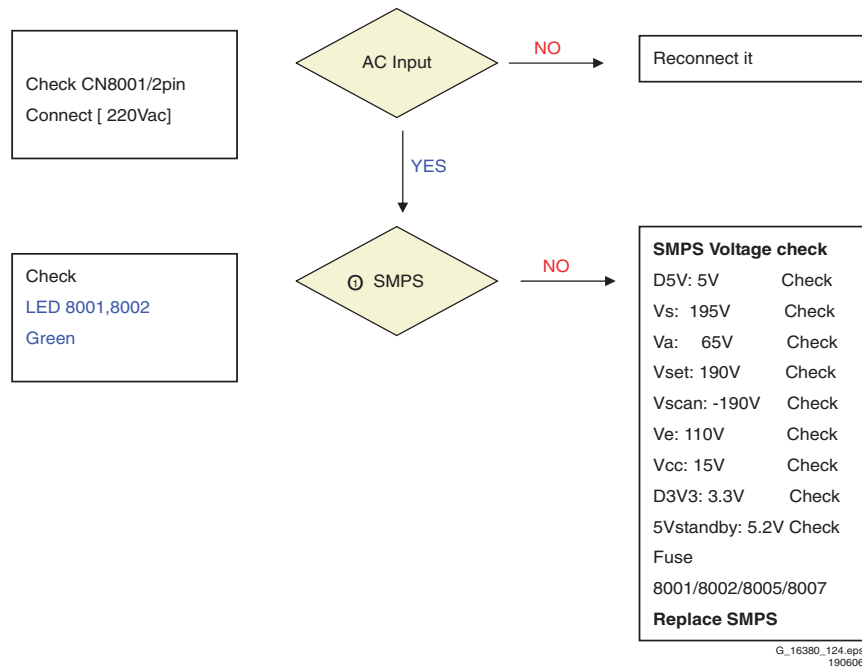


Figure 5-7 Power Supply Check for 42" HD w1 models 1/2

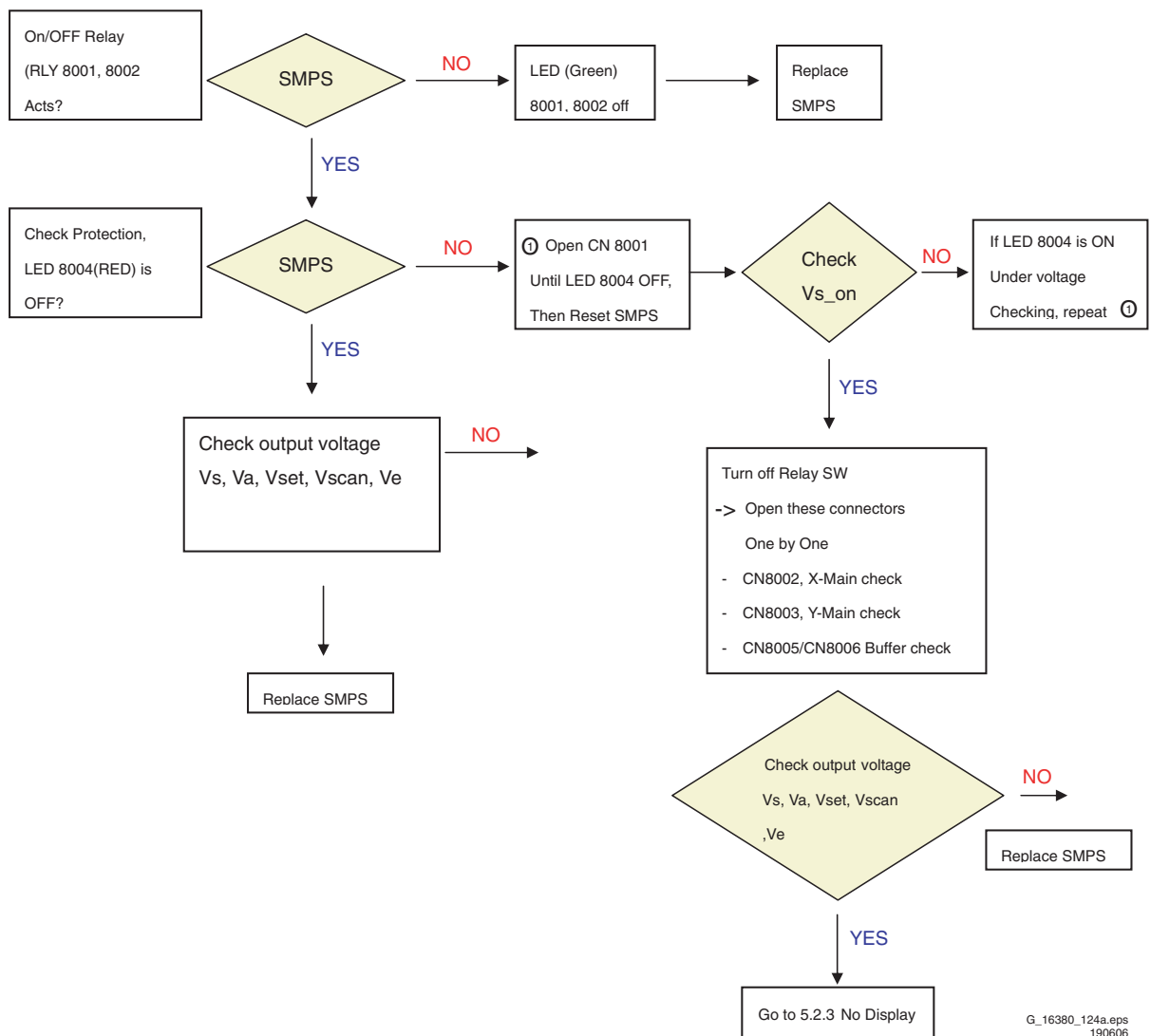


Figure 5-8 Power Supply Check for 42" HD w1 models 2/2

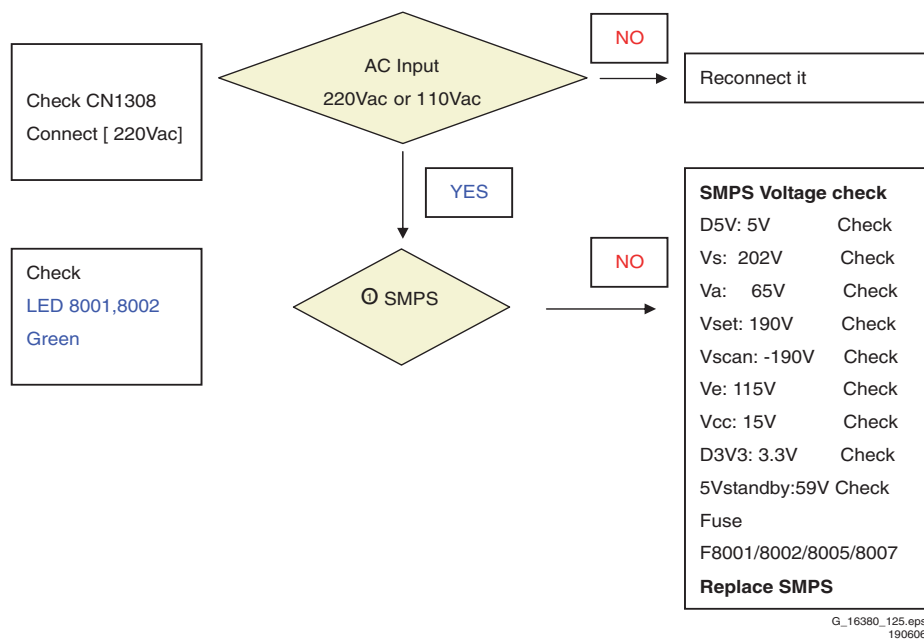


Figure 5-9 Power Supply Check for 50" HD w1 models 1/2

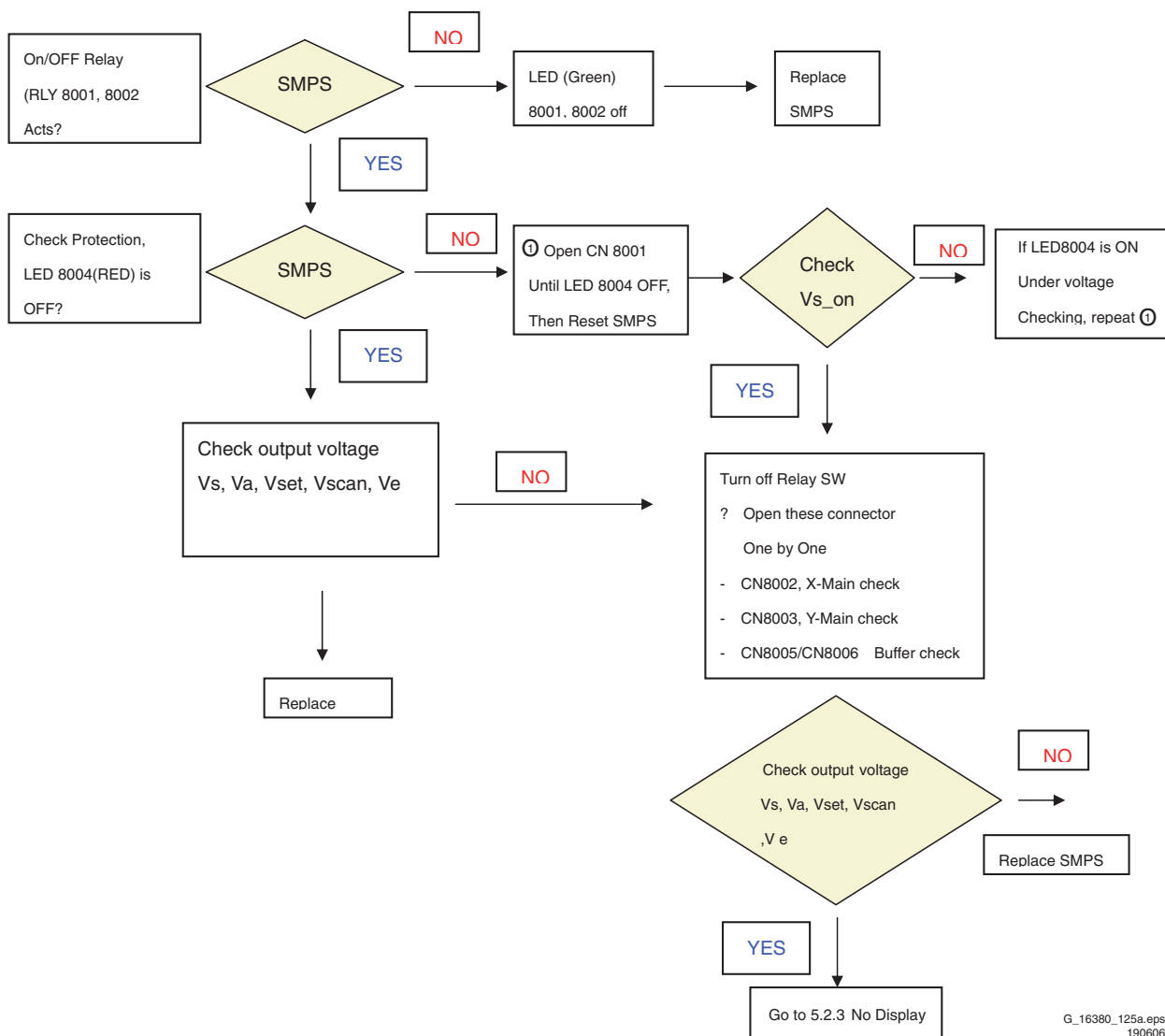


Figure 5-10 Power Supply Check for 50" HD w1 models 2/2

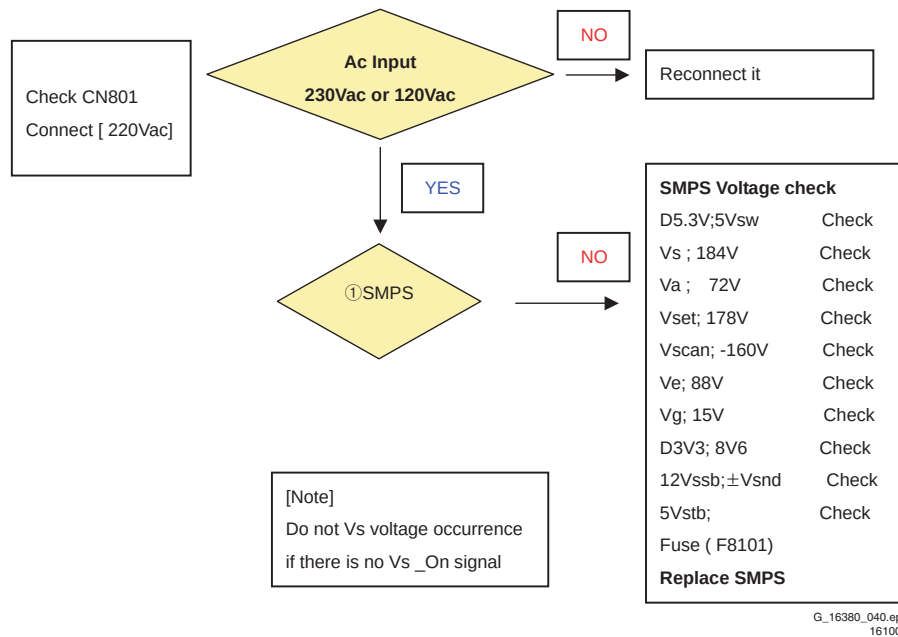


Figure 5-11 Power Supply Check for 63" HD v4 models 1/2

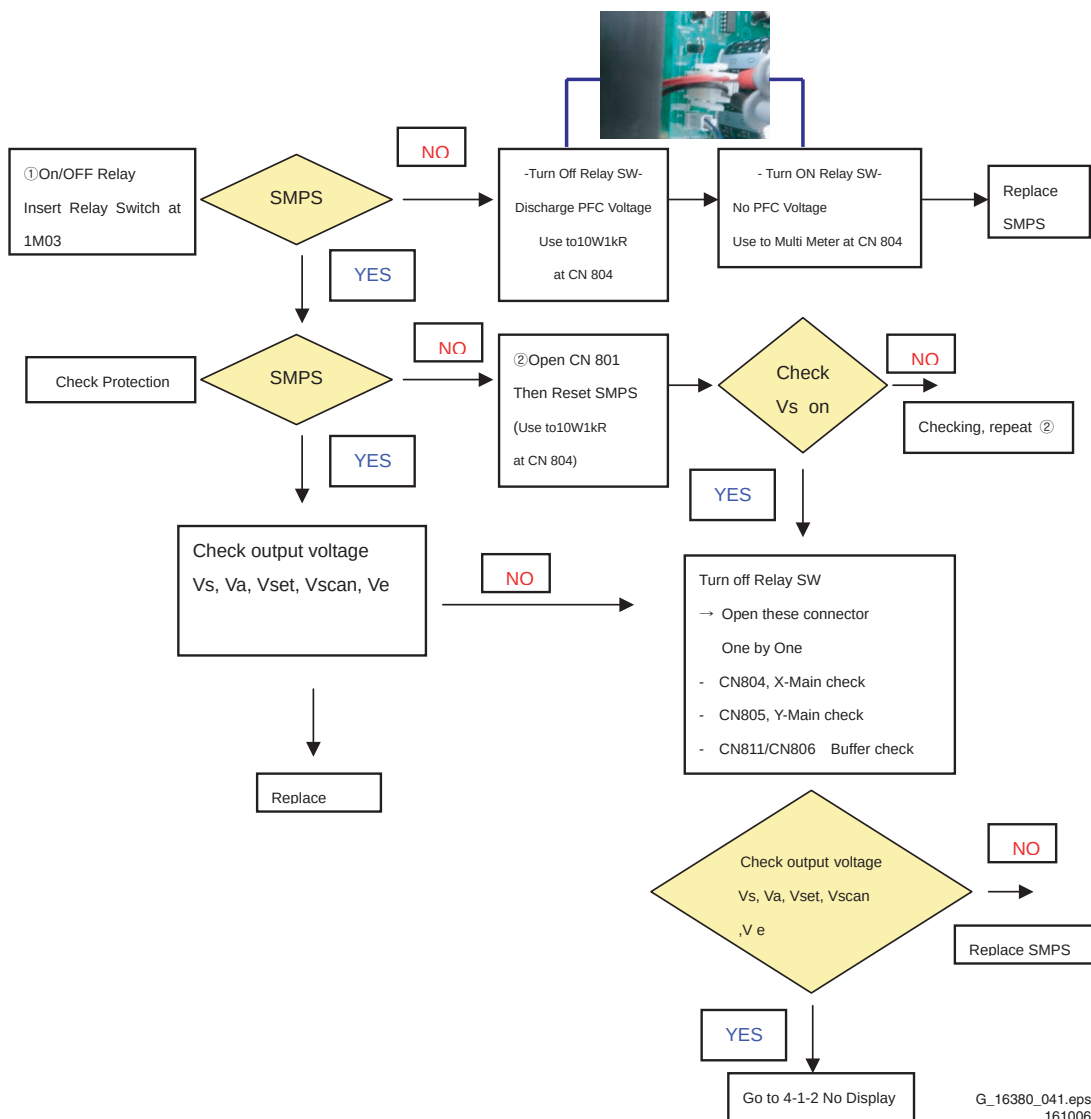


Figure 5-12 Power Supply Check for 63" HD v4 models 2/2

5.2.3 No Display

(operating voltage present, but an image doesn't exist on Screen)

No Display is related with Y-MAIN, X-MAIN, Logic Main and so on.

This page shows you how to check the boards, and the following pages show you how to find the defective board.

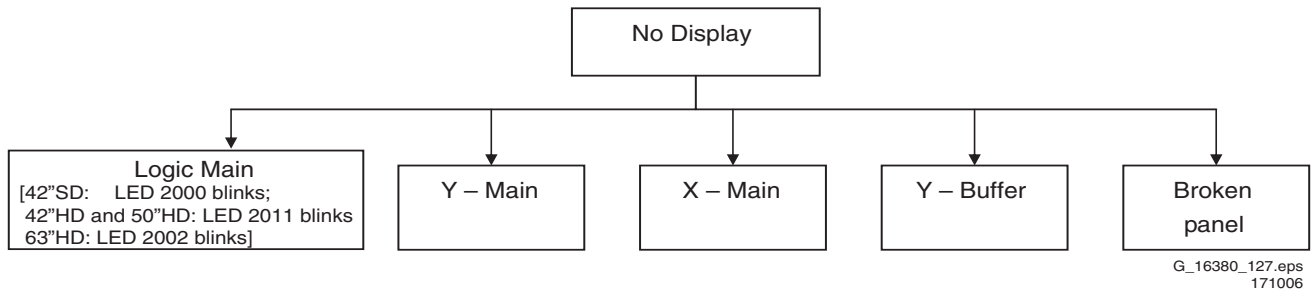


Figure 5-13 Fault symptom: "No Display", general guide line

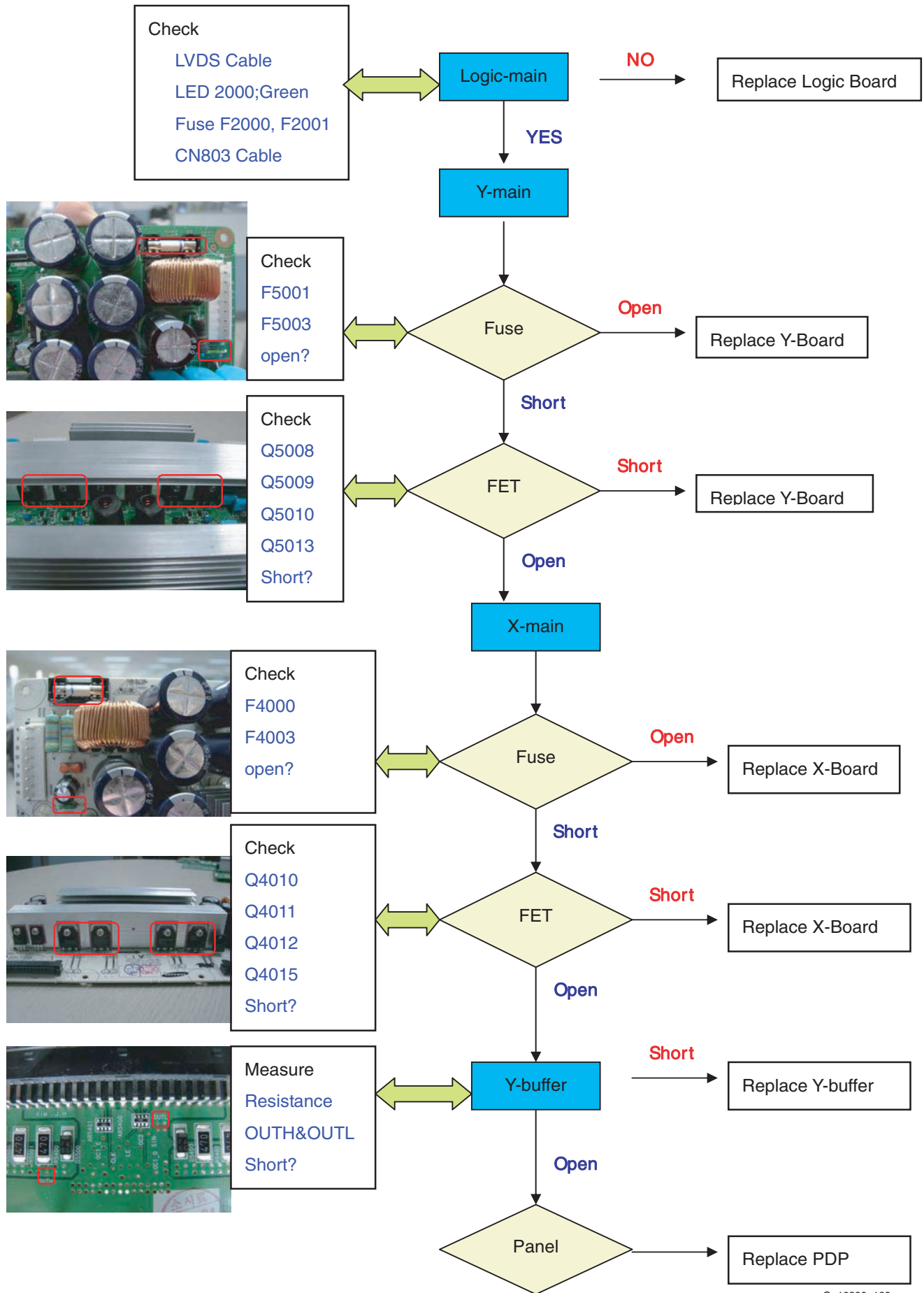


Figure 5-14 Fault symptom: "No Display", 42" SD v5

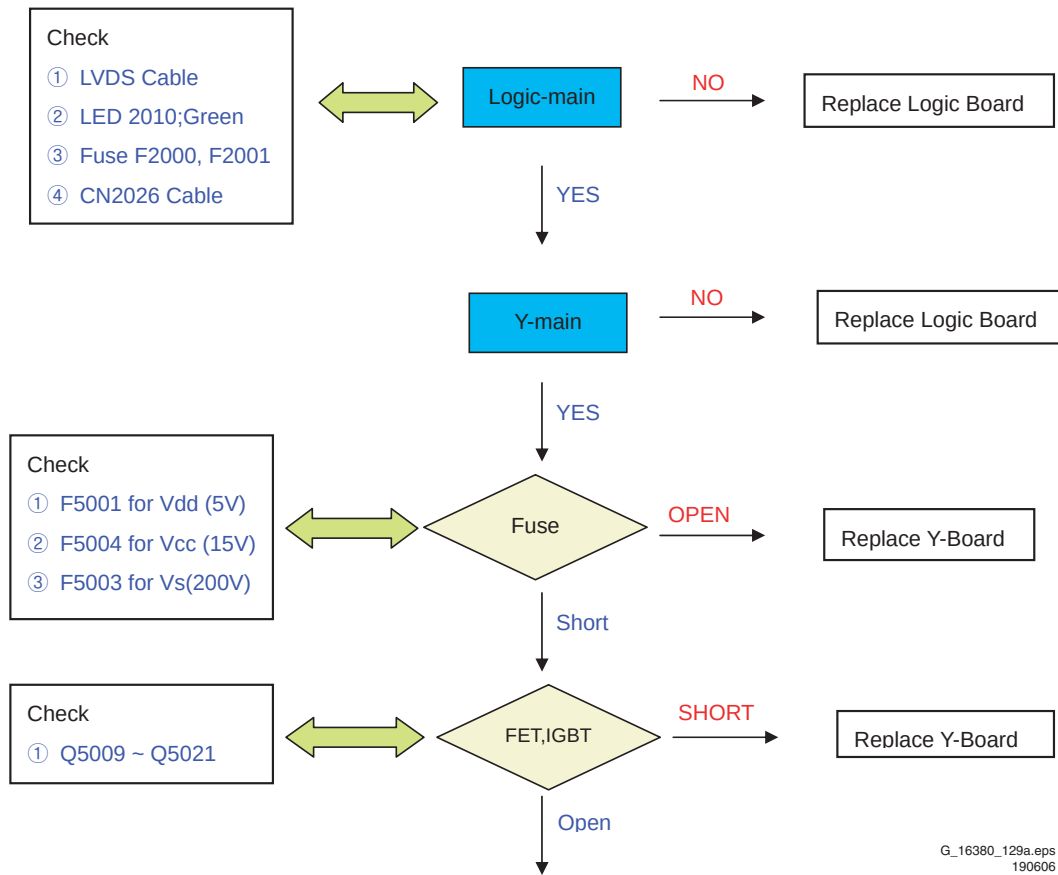


Figure 5-15 Fault symptom: "No Display", 42" HD w1 1/7

Y-main Check Point

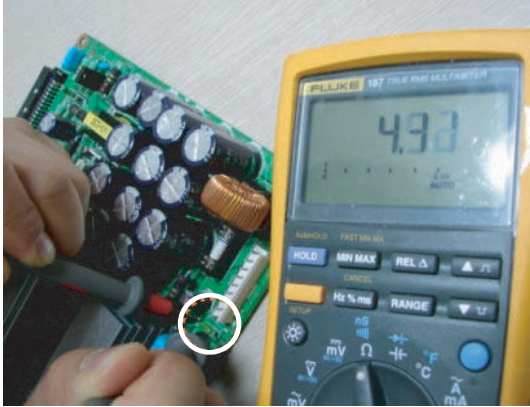
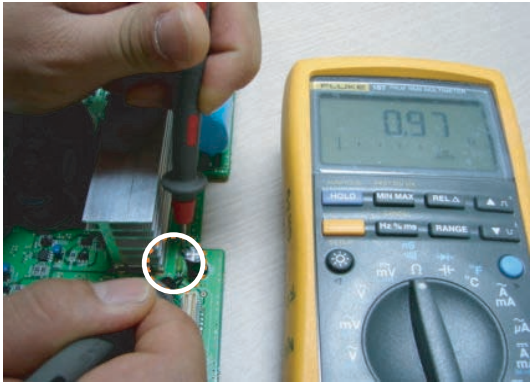
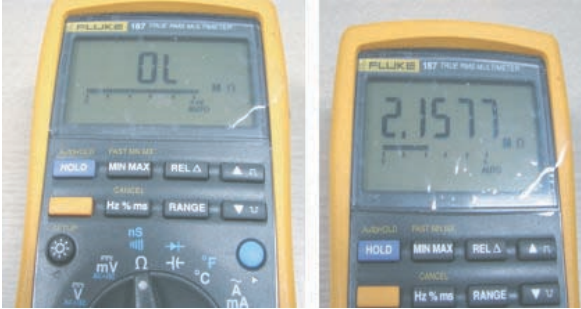
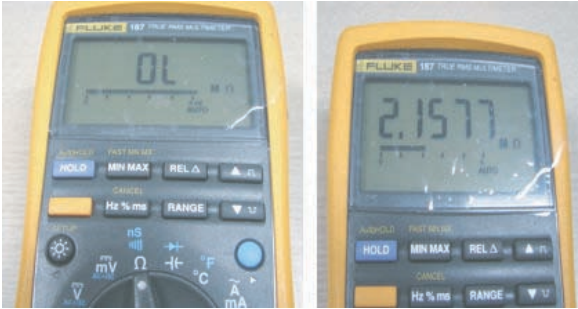
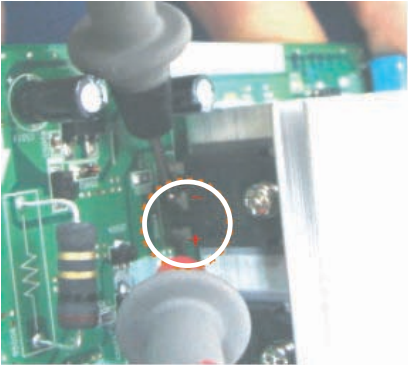
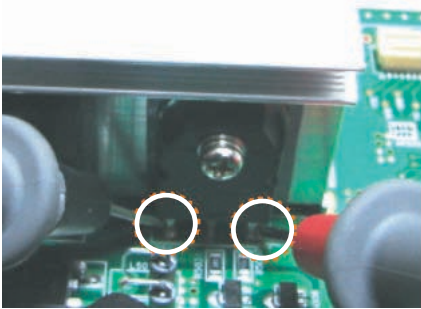
	OR 
Vs fuse (F5003) – OK (0.x ~ x.x ohm)	Vs fuse (F5003) – OPEN (x.x Mohm)
	OR 
15V fuse (F5004) – OK (0.x ~ x.x ohm)	15V fuse (F5004) – OPEN (x.x Mohm)
	OR 
5V fuse (F5001) – OK (0.x ~ x.x ohm)	5V fuse (F5001) – OPEN (x.x Mohm)

Figure 5-16 Fault symptom: “No Display”, 42” HD w1 2/7

	OR 
Vscan fuse (F5006) – OK (0.x ~ x.x ohm)	Vscan fuse (F5006) – OPEN (x.x Mohm)

IGBT, FET Check Point

	 OK Short
FET,IGBT (contain the inner diode) [Ys, Yg, Ypn, Yscan, Yfr, Yrr, Xs, Xg, Xe)	OK (0.3 ~ 0.9 V) / Short (0.000 ~ 0.00x V)
	 OK Short
IGBT (do not contain the inner diode) (Yr, Yf, Xr, Xf)	OK (xx.x kohm) / Short (x.x ohm)

Ys(Q5013,14), Yg(Q5009,10), Ypn(Q5016,17,18), Yscan(Q5020,21), Yfr(Q5019), Yrr(Q5015),
Xs(Q4002,03), Xg(Q4011,12), Xe(Q4013,14)
Yr(Q5011), Yf(Q5012), Xr(Q4016), Xf(Q4015)

Figure 5-17 Fault symptom: “No Display”, 42” HD w1 3/7

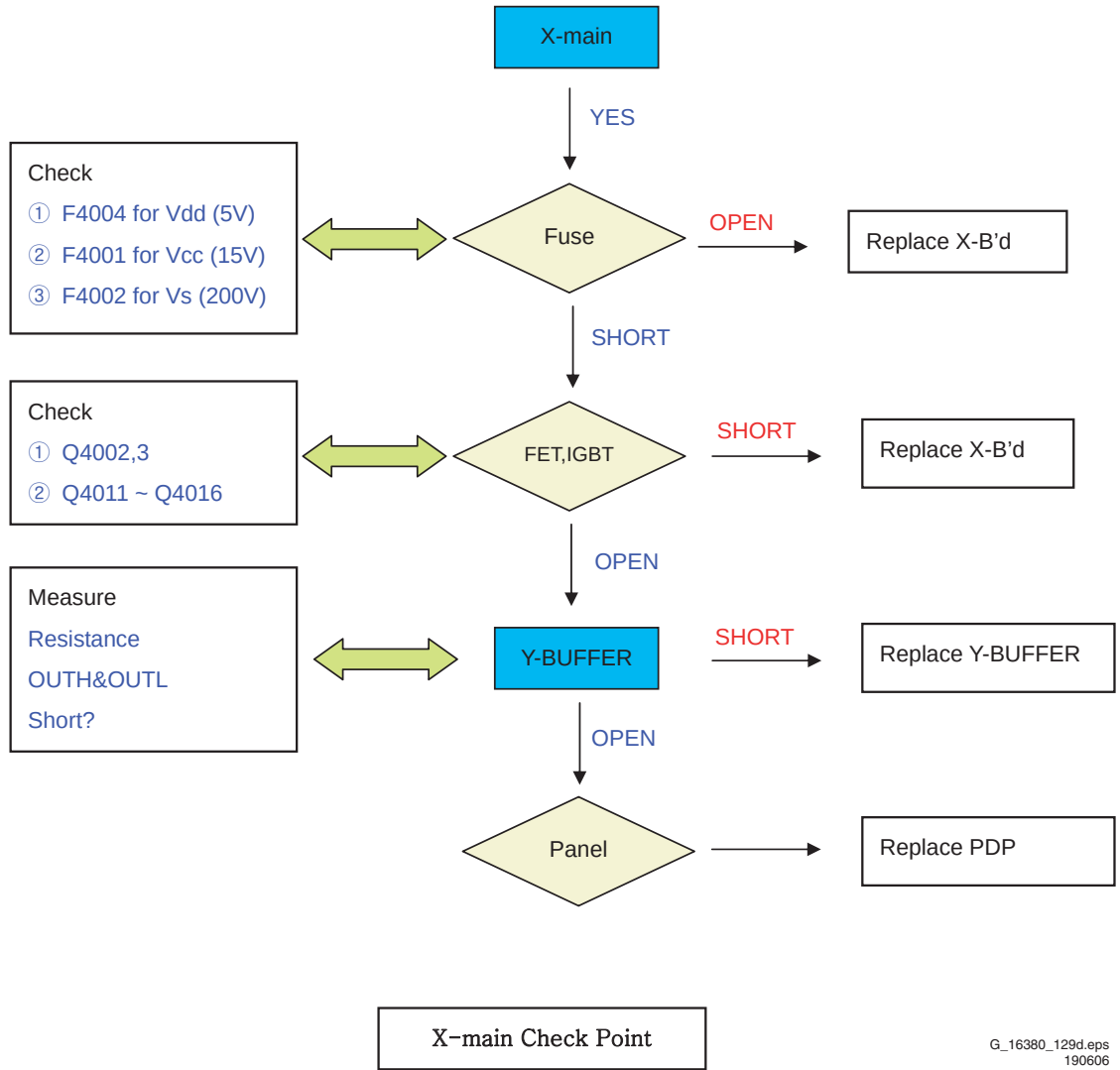


Figure 5-18 Fault symptom: "No Display", 42" HD w1 4/7

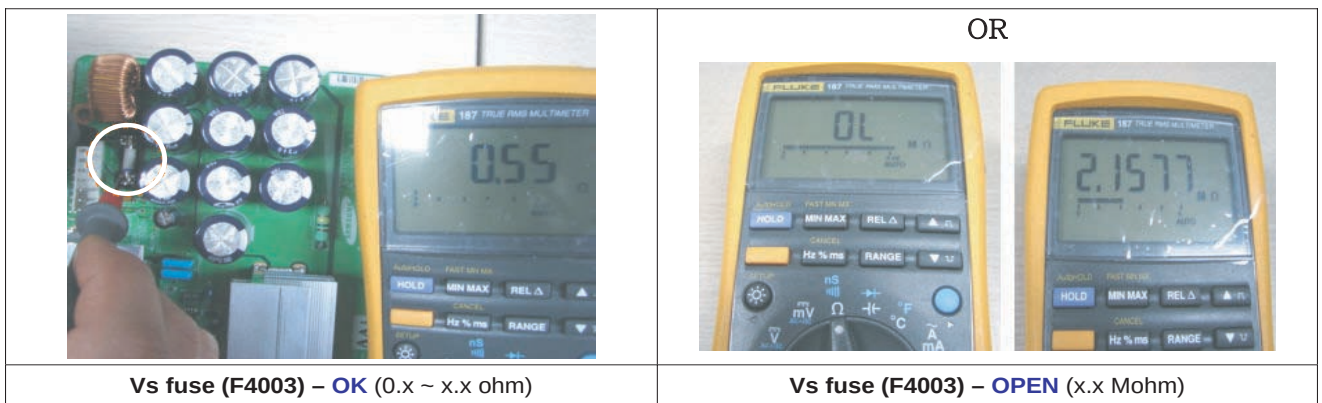


Figure 5-19 Fault symptom: "No Display", 42" HD w1 5/7

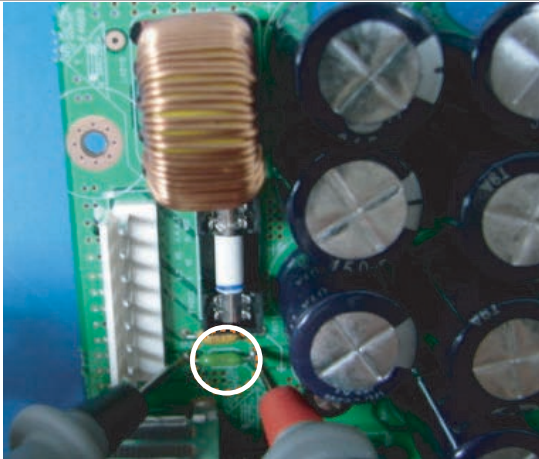


Ve fuse (F4005) – OK (0.x ~ x.x ohm)

OR

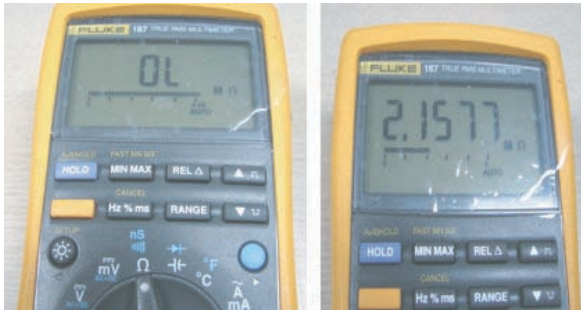


Vs fuse (F4005) – OPEN (x.x Mohm)

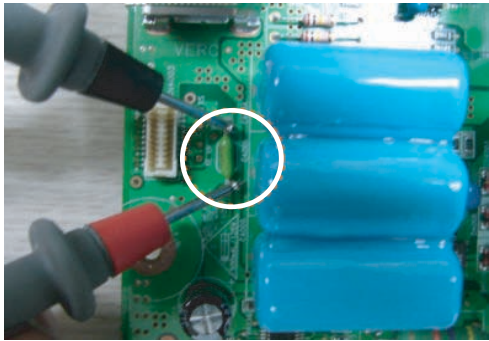


15V fuse (F4001) – OK (0.x ~ x.x ohm)

OR

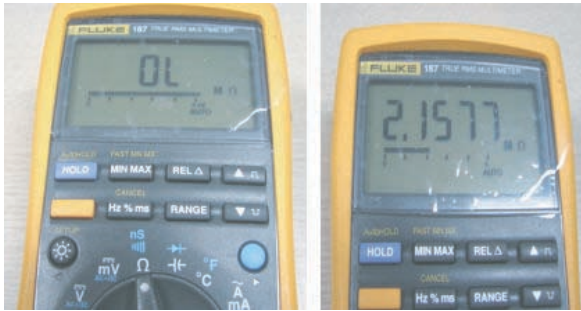


Vs fuse (F4001) – OPEN (x.x Mohm)



5V fuse (F4004) – OK (0.x ~ x.x ohm)

OR



5V fuse (F4004) – OPEN (x.x Mohm)

Figure 5-20 Fault symptom: “No Display”, 42” HD w1 6/7

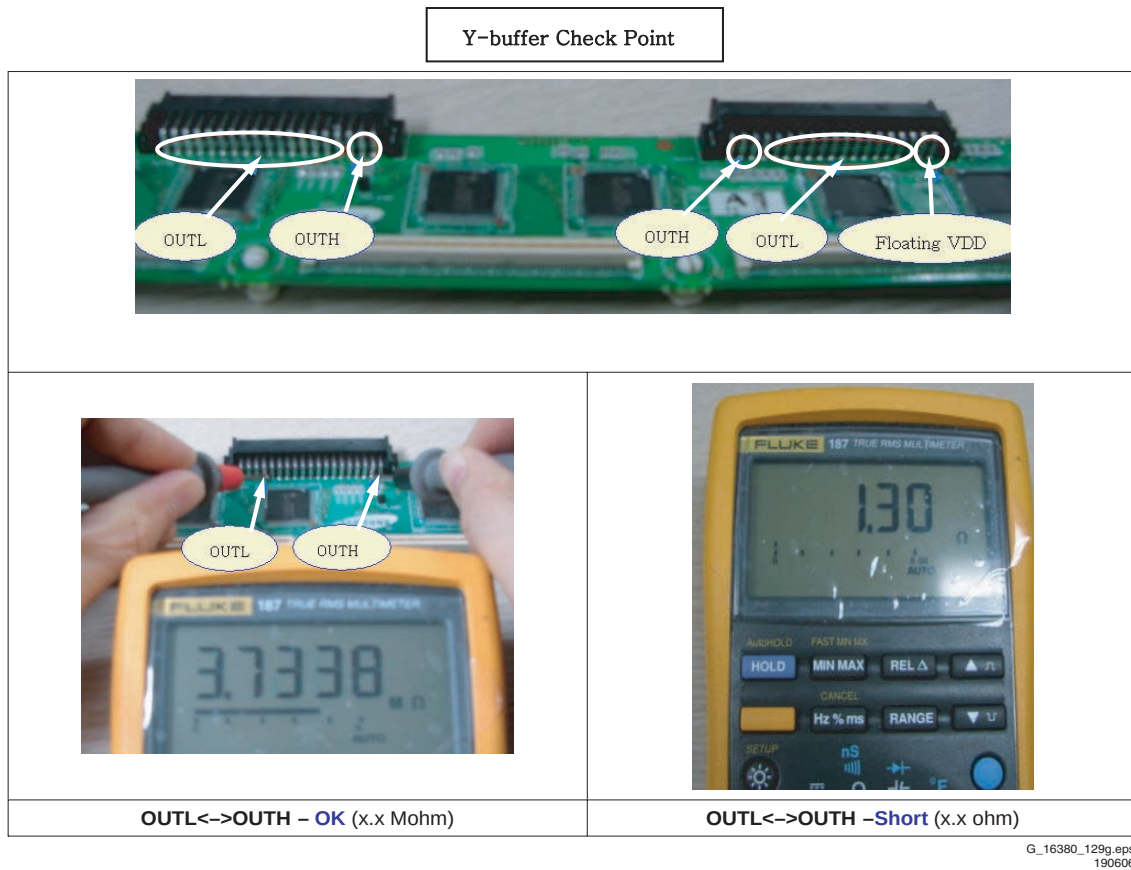


Figure 5-21 Fault symptom: “No Display”, 42” HD w1 7/7

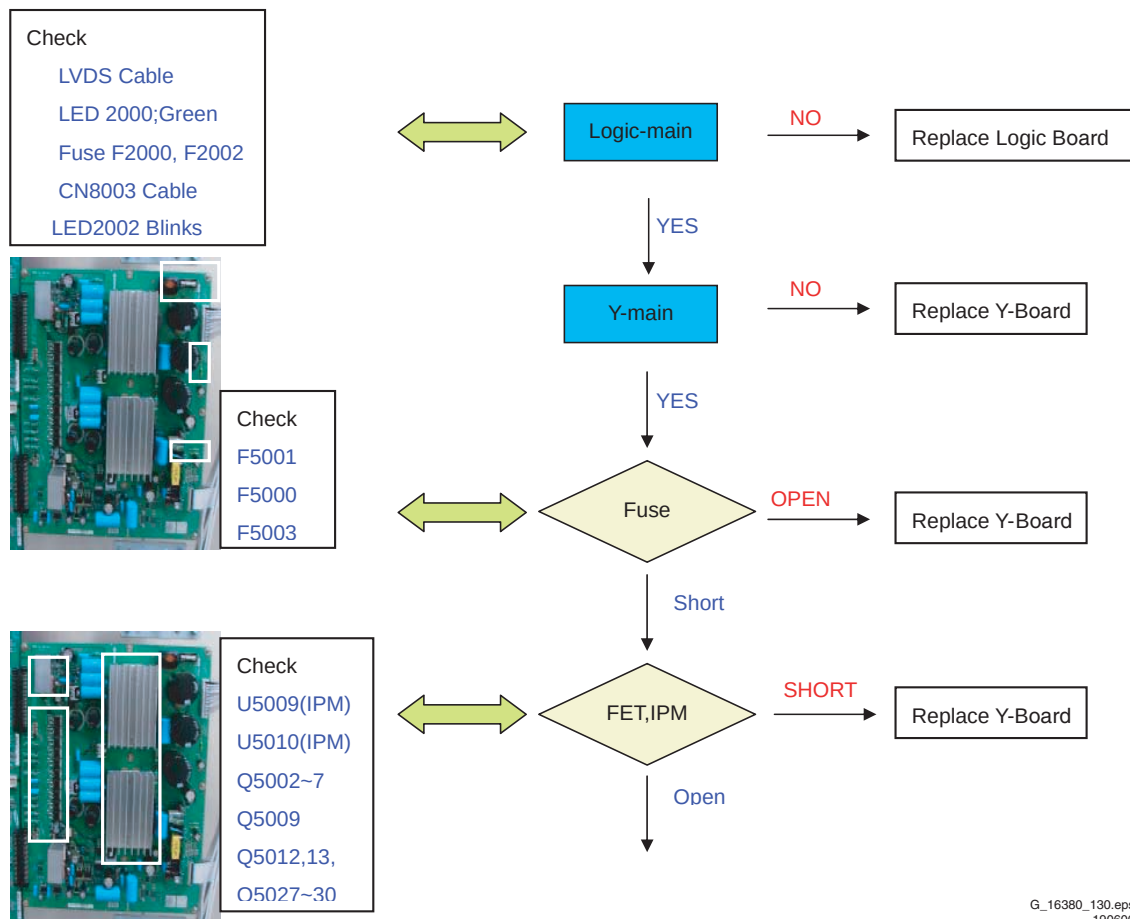


Figure 5-22 Fault symptom: “No Display”, 50” HD w1 1/6

Y- main Check Point	
	OR  
Vs fuse (F5003) – OK (0.x ~ x.x ohm)	Vs fuse (F5003) – OPEN (x.x Mohm)
	OR  
15V fuse (F5000) – OK (0.x ~ x.x ohm)	15V fuse (F5000) – OPEN (x.x Mohm)
	OR  
5V fuse (F5001) – OK (0.x ~ x.x ohm)	5V fuse (F5001) – OPEN (x.x Mohm)

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Figure 5-23 Fault symptom: “No Display”, 50” HD w1 2/6

IGBT, FET Check Point	
	 
FET [Ys, Yg, Ypn, Yscan, Yfr, Yrr, Xs, Xg, Xe]	OK OK (0.3 ~ 0.9 V) / Short (0.000 ~ 0.00x V)

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Figure 5-24 Fault symptom: “No Display”, 50” HD w1 3/6

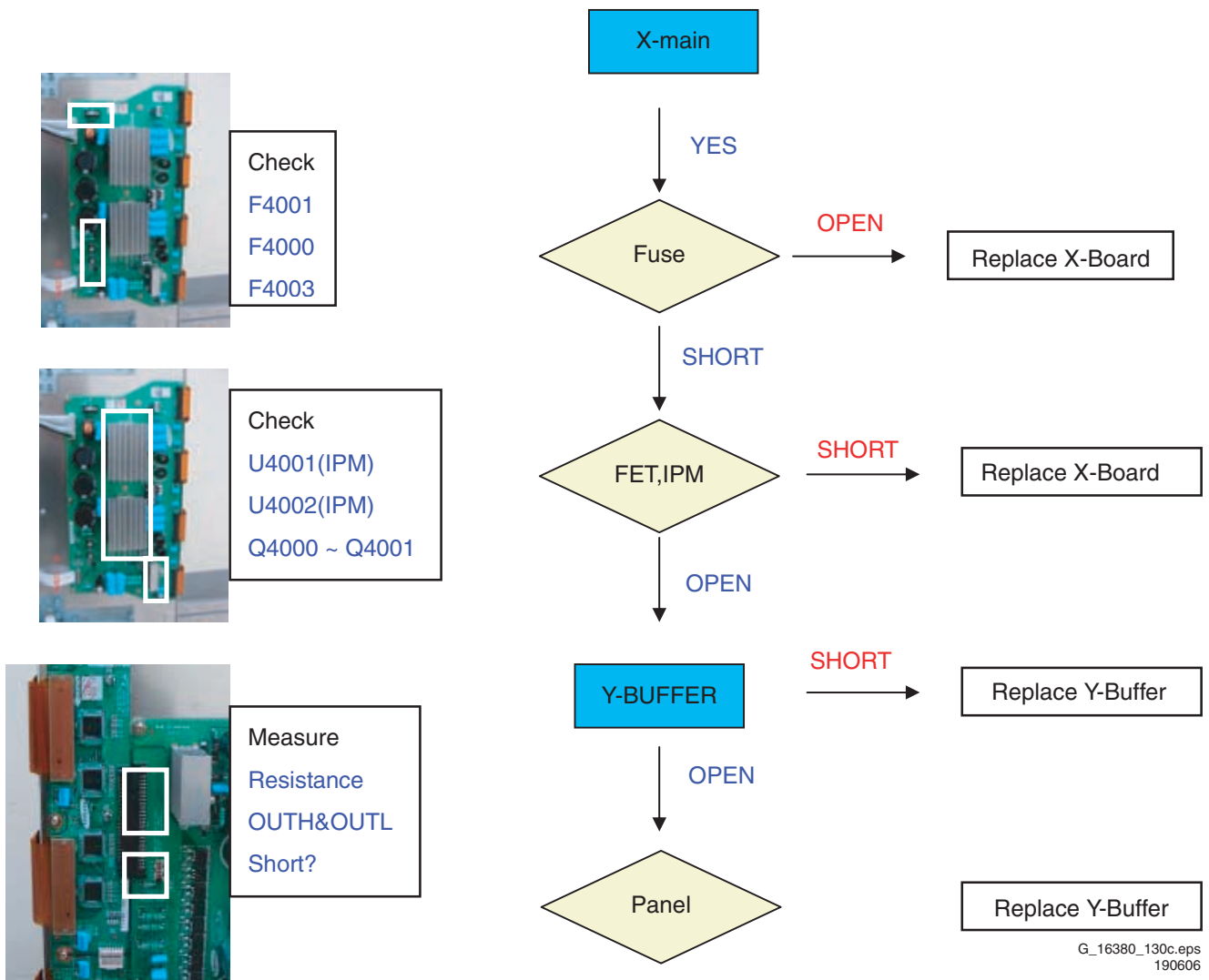


Figure 5-25 Fault symptom: "No Display", 50" HD w1 4/6

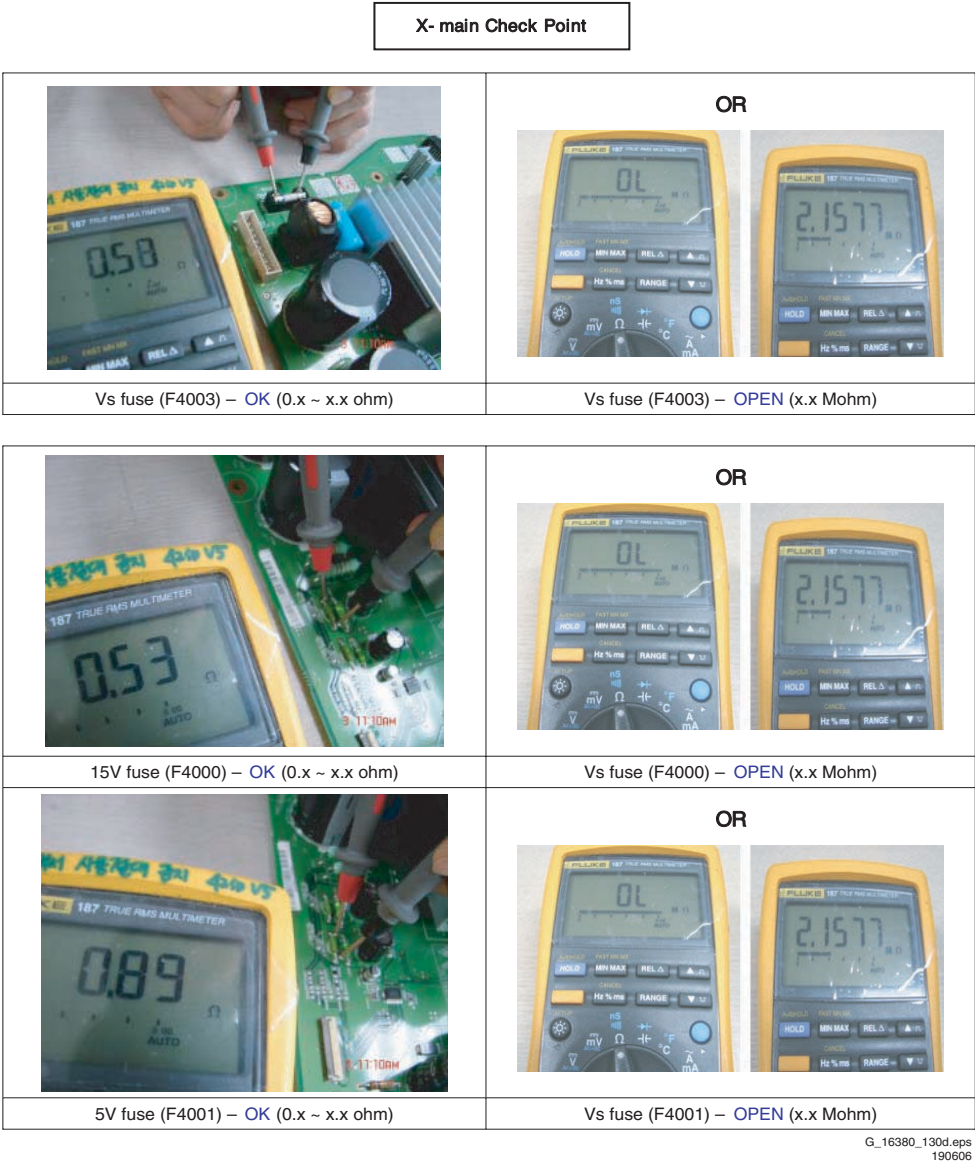


Figure 5-26 Fault symptom: “No Display”, 50” HD w1 5/6

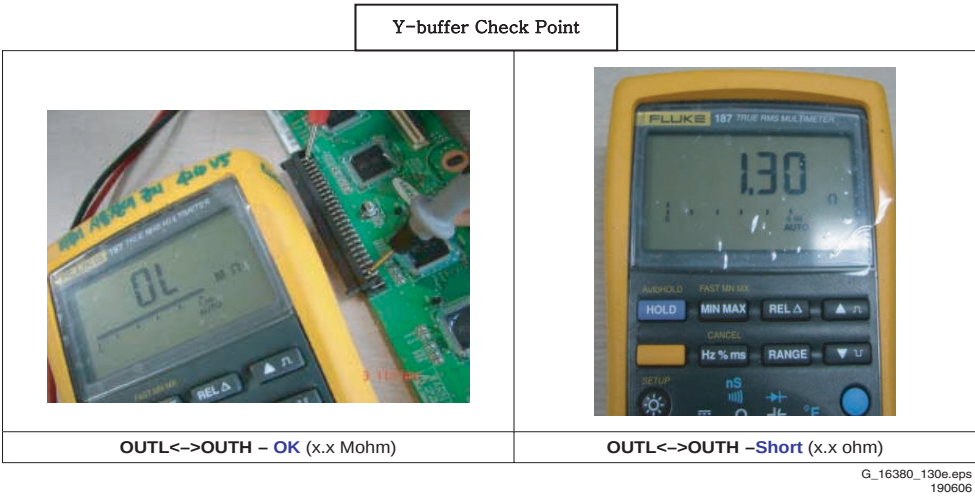


Figure 5-27 Fault symptom: “No Display”, 50” HD w1 6/6

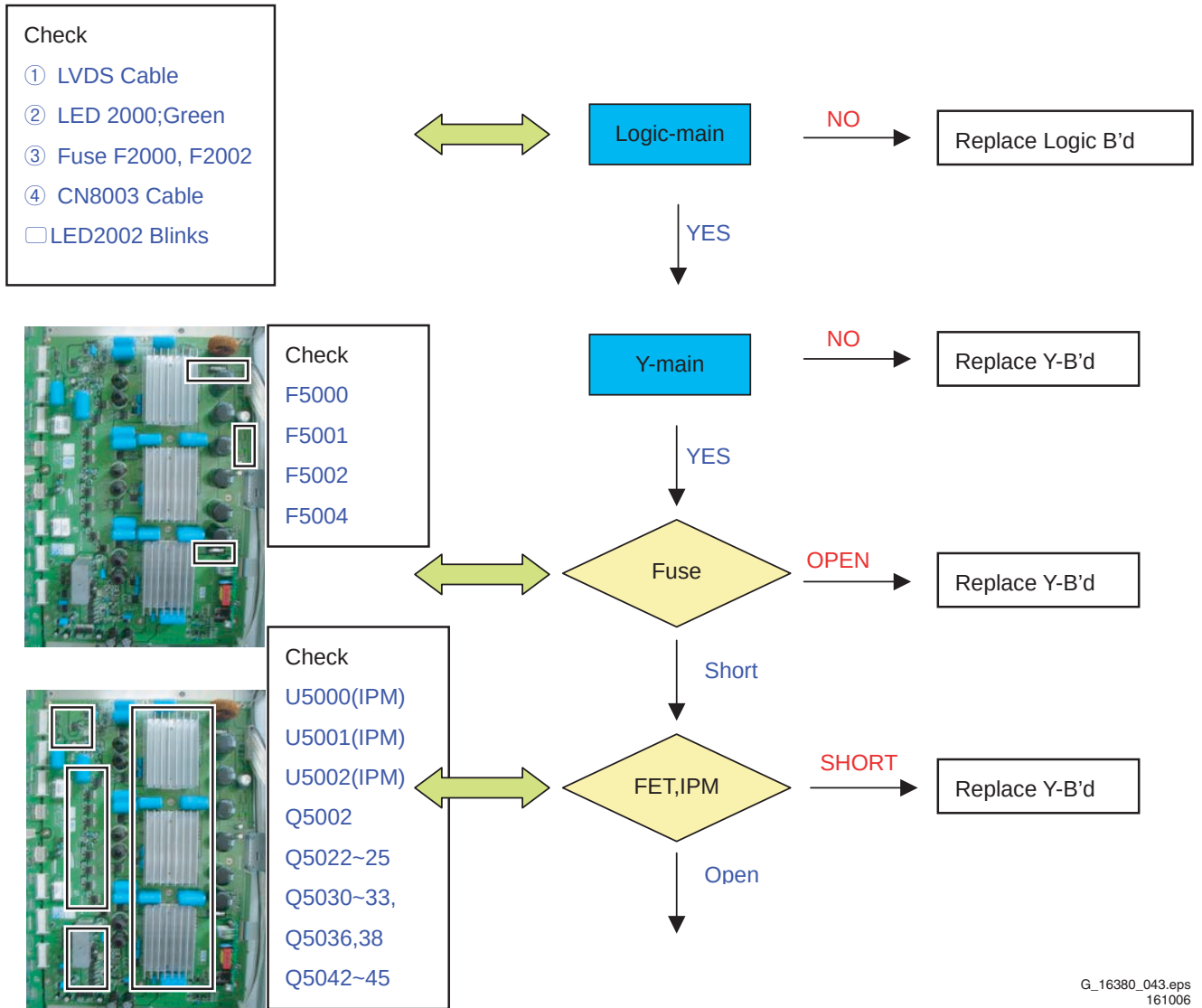
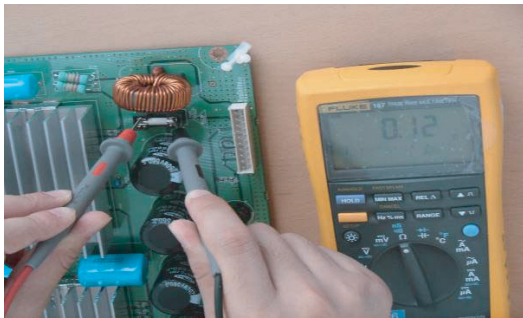


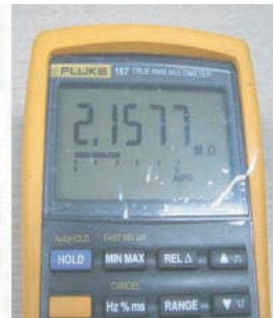
Figure 5-28 Fault symptom: "No Display", 63" HD v4 1/6

Y-main Check Point

OR

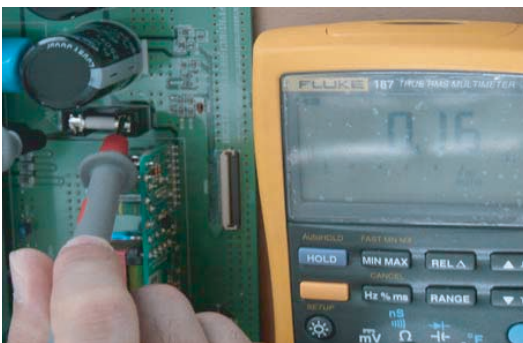


Vs fuse (F5002) – OK (0.x ~ x.x ohm)

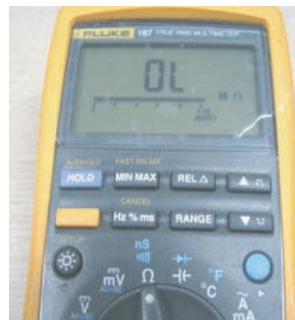


Vs fuse (F5002) – OPEN (x.x Mohm)

OR

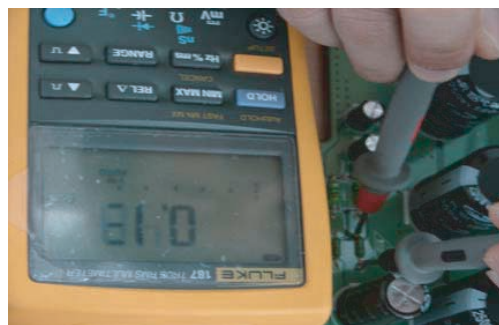


Vs fuse (F5004) – OK (0.x ~ x.x ohm)

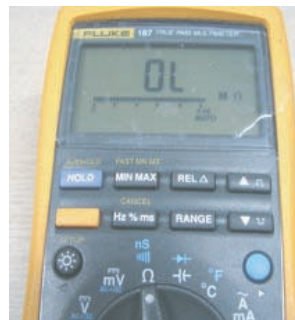


Vs fuse (F5004) – OPEN (x.x Mohm)

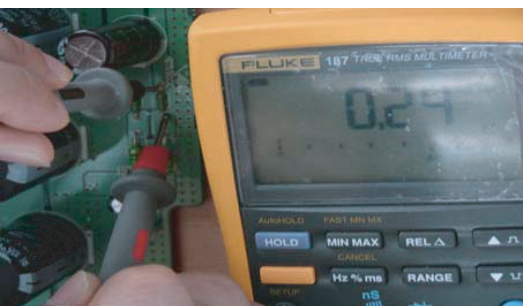
OR



15V fuse (F5001) – OK (0.x ~ x.x ohm)



15V fuse (F5001) – OPEN (x.x Mohm)



5V fuse (F5000) – OK (0.x ~ x.x ohm)

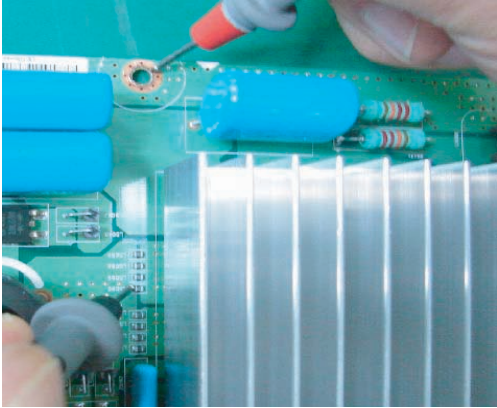
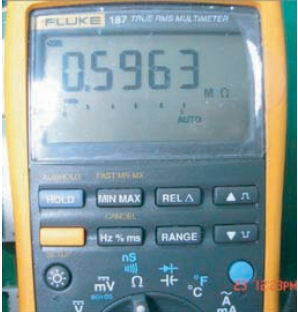


5V fuse (F5000) – OPEN (x.x Mohm)

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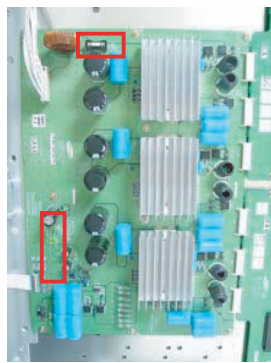
Figure 5-29 Fault symptom: “No Display”, 63” HD v4 2/6

FET,IPM Check Point

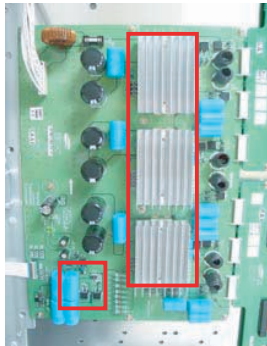
	 
FET [Ys, Yg, Ypn, Yscan, Yfr, Yrr, Xs, Xg, Xe)	OK Short
	OK (0.3 ~ 0.9 V) / Short (0.000 ~ 0.00x V)
	 
IPM	OK Short
	OK (X.X Mohm) / Short (0.000 ~ 0.00x ohm)

G_16380_045.eps
161006

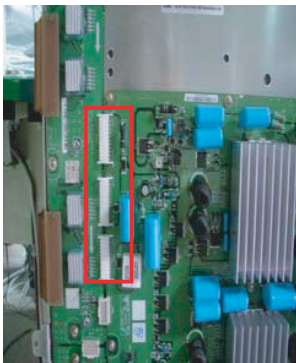
Figure 5-30 Fault symptom: “No Display”, 63” HD v4 3/6



Check
F4000
F4001
F4003



Check
U4003(IPM)
U4005(IPM)
U4006(IPM)
Q4002, Q4003



Measure
Resistance
OUTH&OUTL
Short?

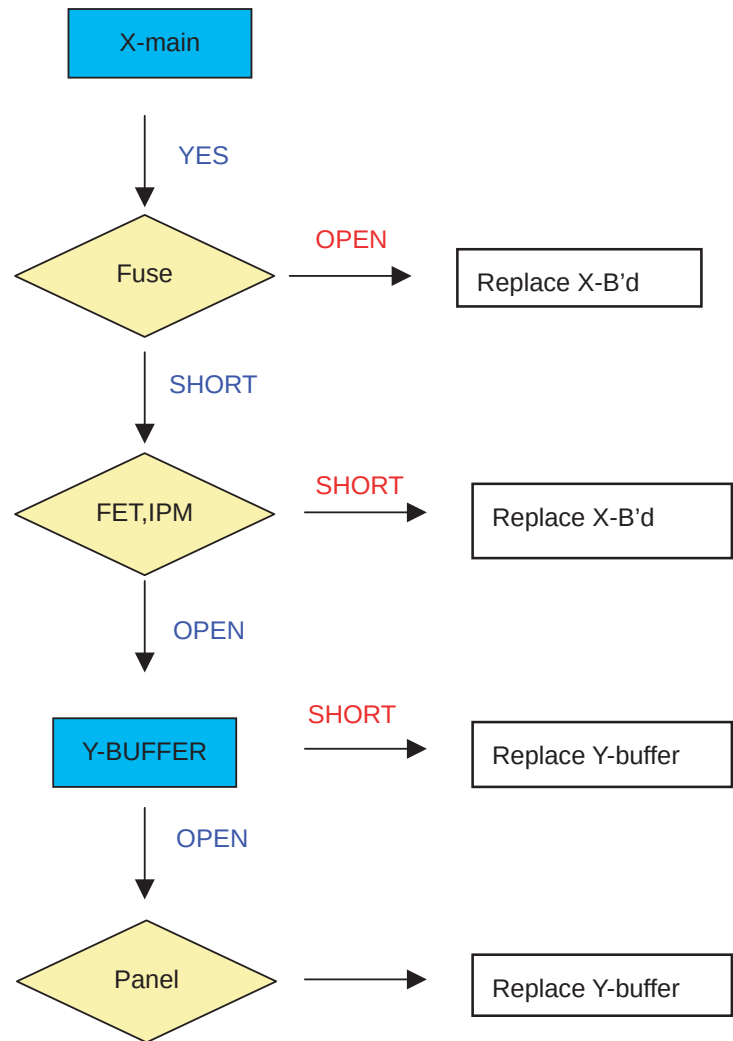


Figure 5-31 Fault symptom: "No Display", 63" HD v4 4/6

X-main Check Point

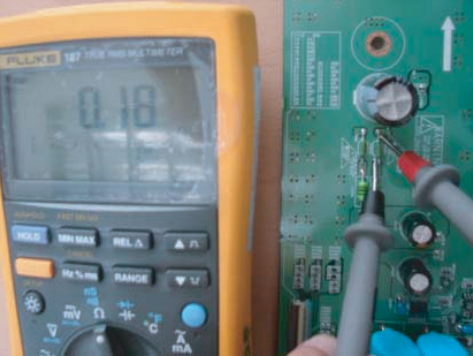
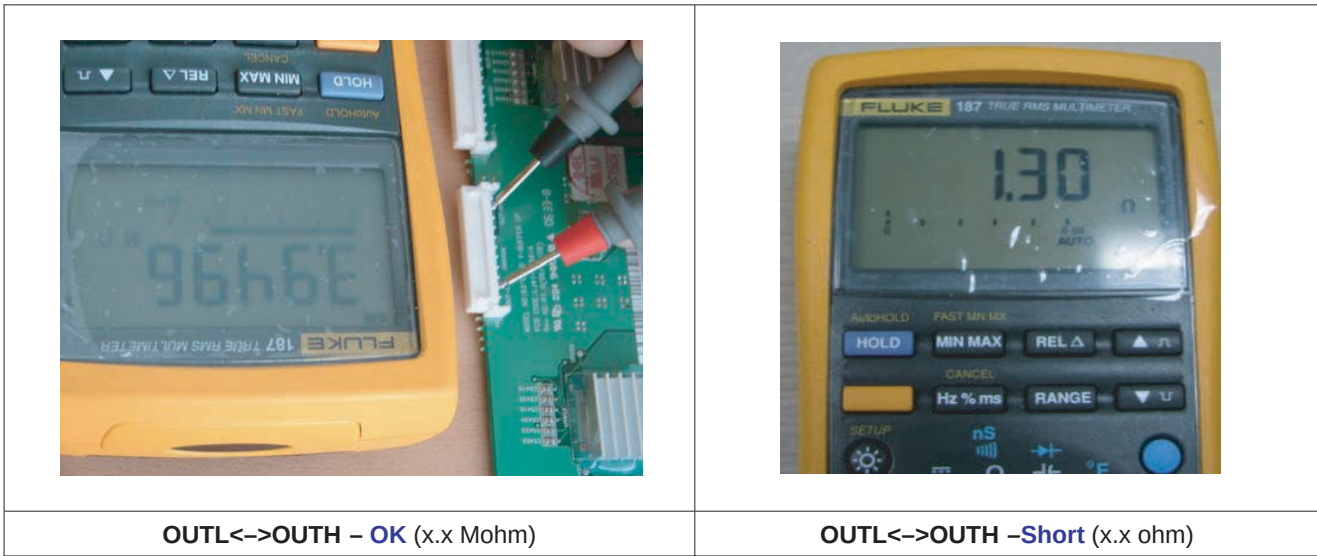
 Vs fuse (F4003) – OK (0.x ~ x.x ohm)	OR   Vs fuse (F4003) – OPEN (x.x Mohm)
 15V fuse (F4001) – OK (0.x ~ x.x ohm)	OR   15V fuse (F4001) – OPEN (x.x Mohm)
 5V fuse (F4000) – OK (0.x ~ x.x ohm)	OR   Vs fuse (F4000) – OPEN (x.x Mohm)

Figure 5-32 Fault symptom: “No Display”, 63” HD v4 5/6

Y-buffer Check Point



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161006

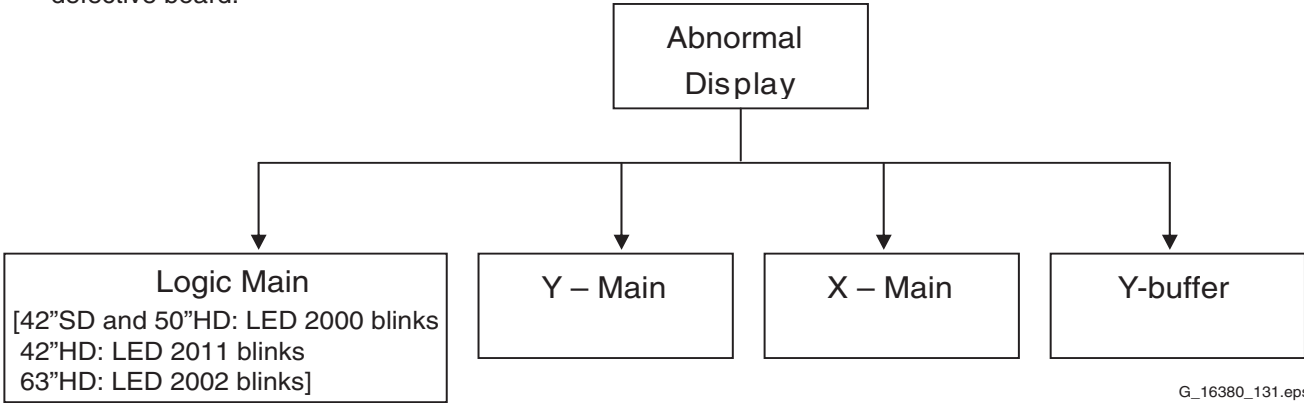
Figure 5-33 Fault symptom: “No Display”, 63” HD v4 6/6

5.2.4 Abnormal display

(Abnormal Image is on Screen (except abnormality in Sustain or Address))

-> Abnormal Display is related with Y-MAIN, X-MAIN, Logic Main, Y-buffer and so on.

This page shows you how to check the boards, and the following pages show you how to find the defective board.



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171006

Figure 5-34 Fault symptom: “Abnormal Display”, general guide line

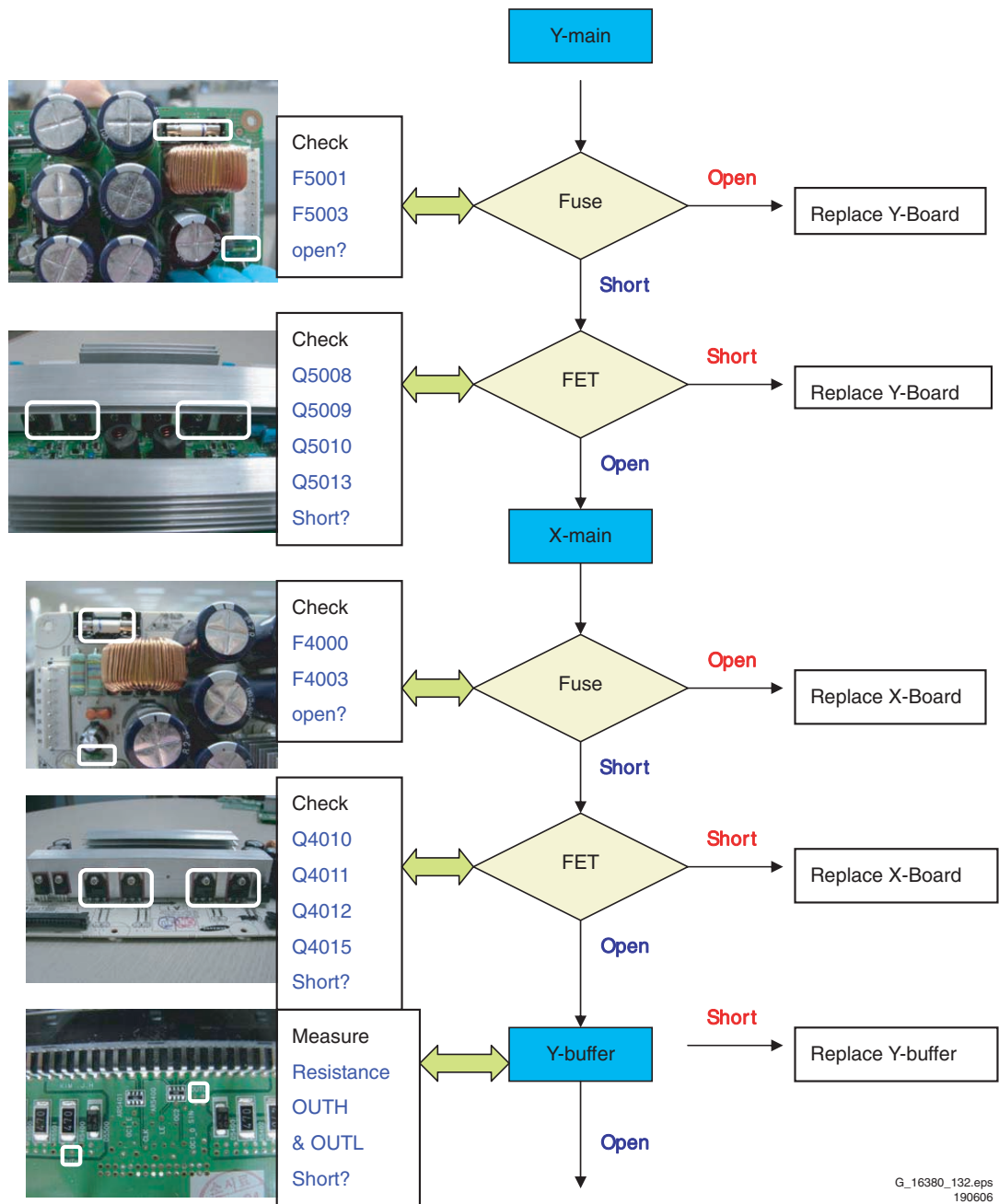
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190606

Figure 5-35 Fault symptom: "Abnormal Display" 42" SD v5 1/2

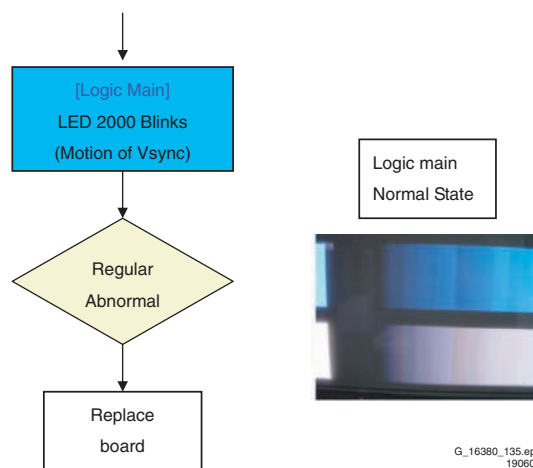
G_16380_135.eps
190606

Figure 5-36 Fault symptom: "Abnormal Display" 42" SD v5 2/2

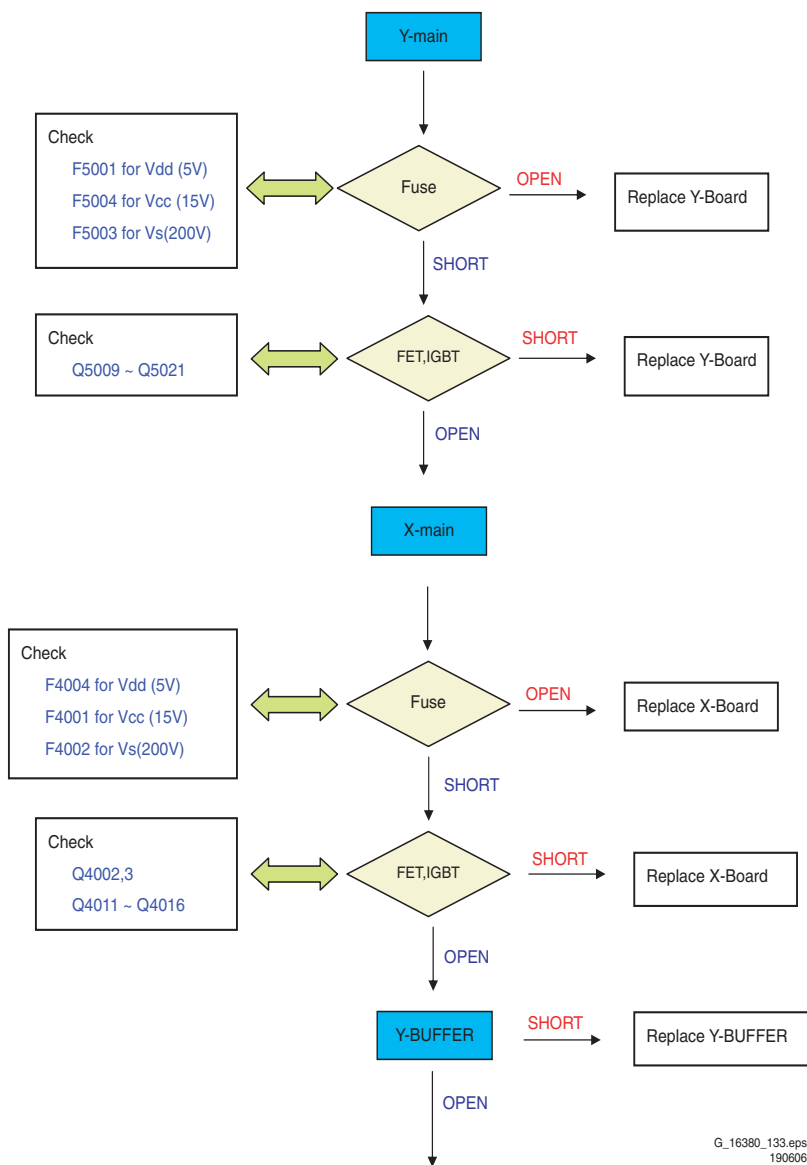


Figure 5-37 Fault symptom: “Abnormal Display” 42” HD w1 1/2

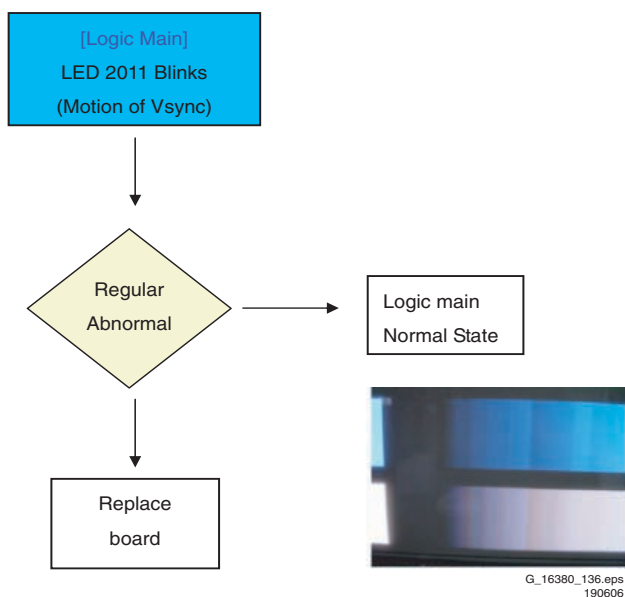


Figure 5-38 Fault symptom: “Abnormal Display” 42” HD w1 2/2

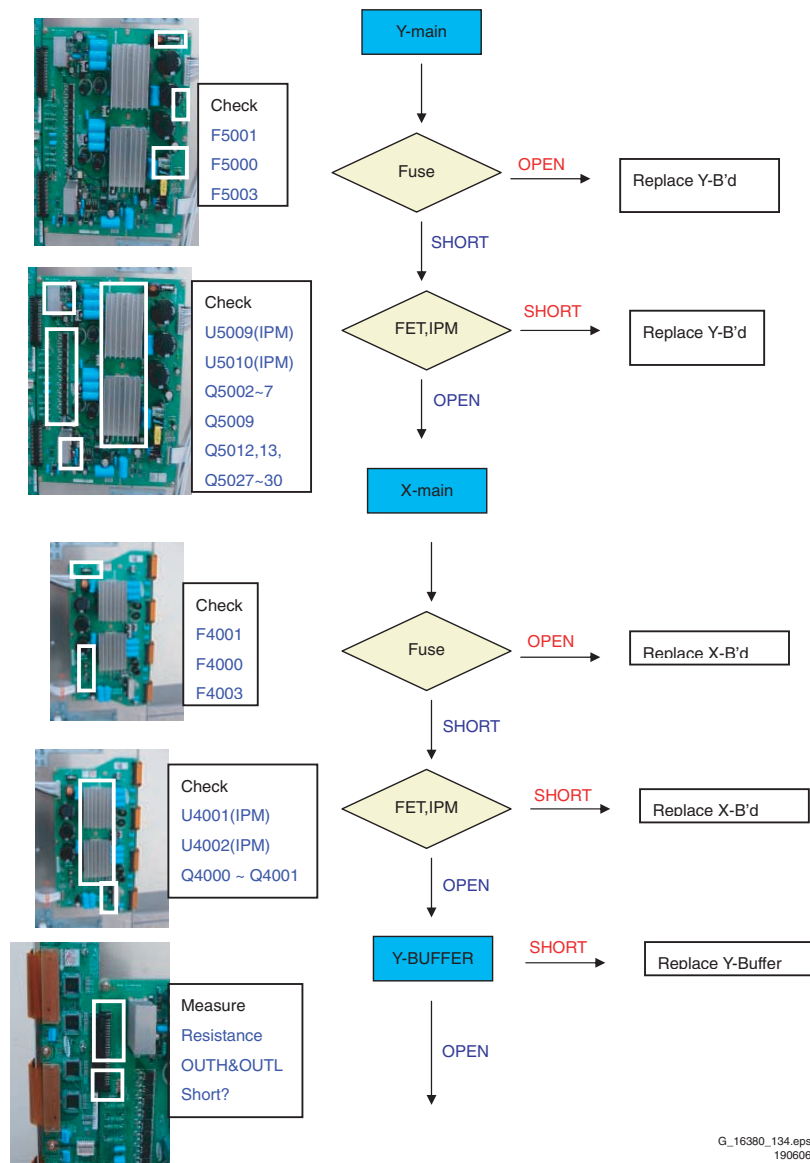


Figure 5-39 Fault symptom: "Abnormal Display" 50" HD w1 1/2

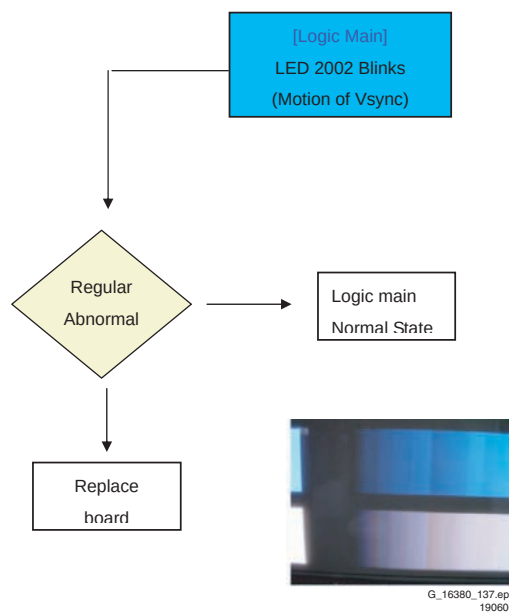
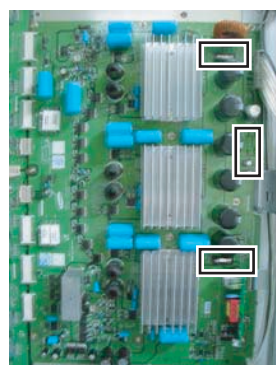
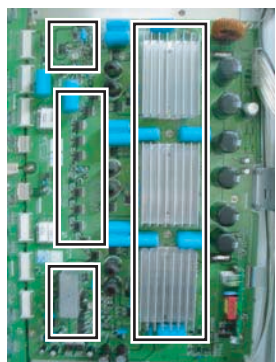


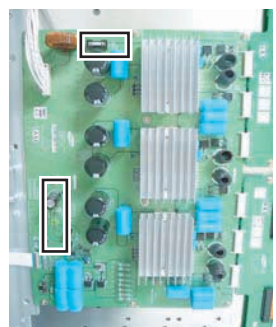
Figure 5-40 Fault symptom: "Abnormal Display" 50" HD w1 2/2



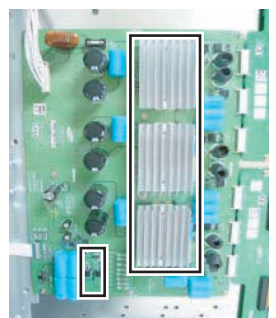
Check
F5000
F5001
F5002
F5004



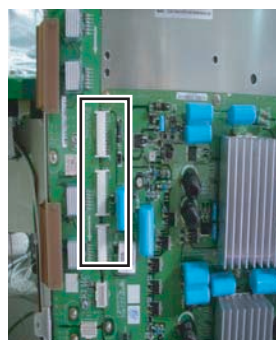
Check
U5000(IPM)
U5001(IPM)
U5002(IPM)
Q5002
Q5022~25
Q5030~33,
Q5036,38
Q5042~45



Check
F4000
F4001
F4003



Check
U4003(IPM)
U4005(IPM)
U4006(IPM)
Q4002, Q4003



Measure
Resistance
OUTH&OUTL
Short?

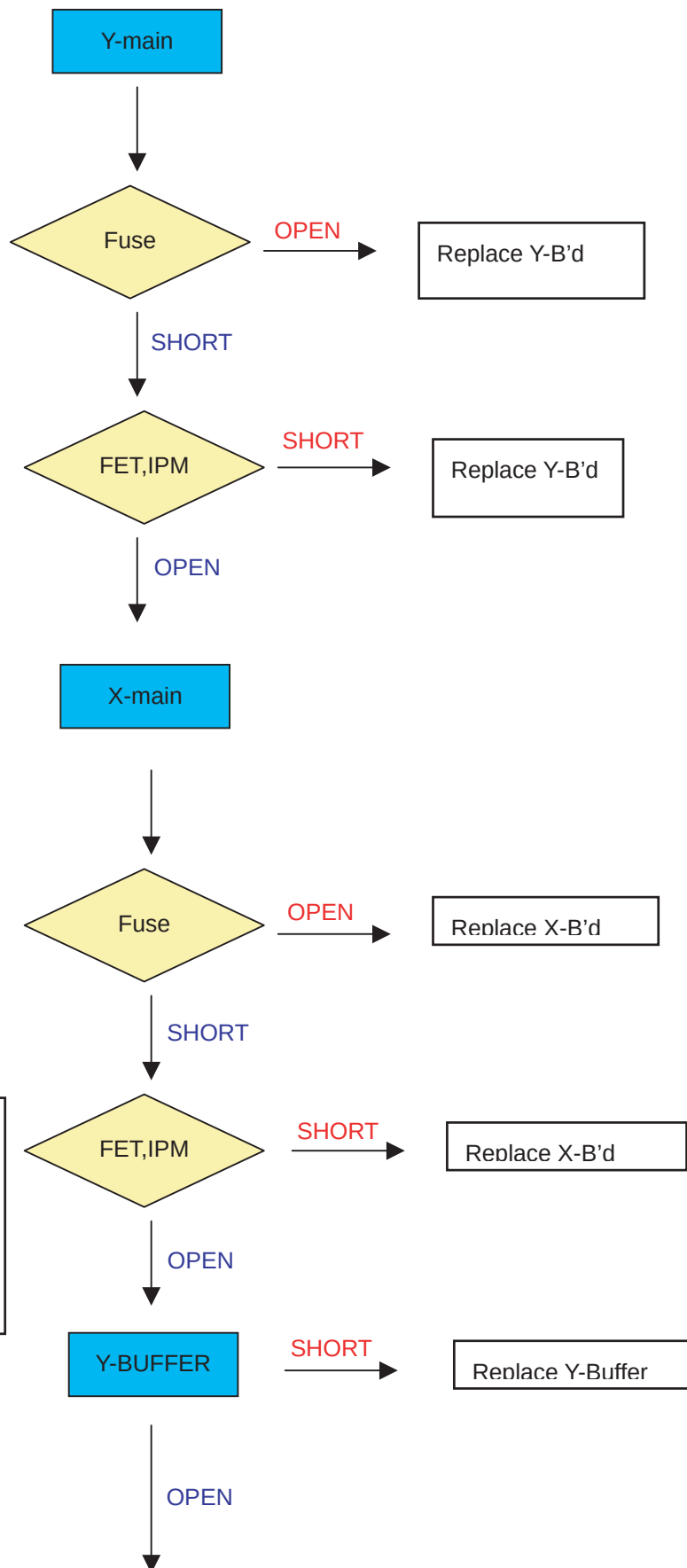


Figure 5-41 Fault symptom: "Abnormal Display" 63" HD v4 1/2

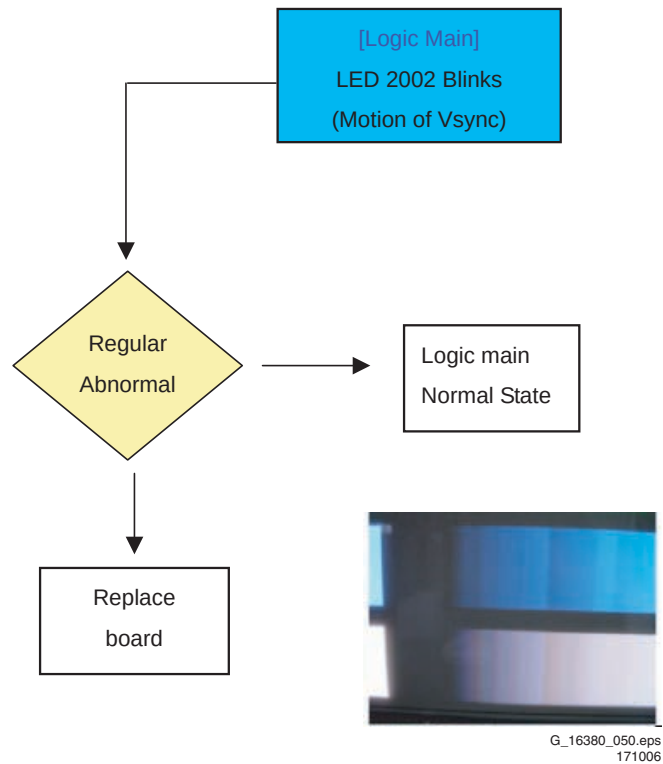


Figure 5-42 Fault symptom: "Abnormal Display" 63" HD v4 2/2

5.2.5 Horizontal line or block open

(some horizontal lines don't exist on screen)

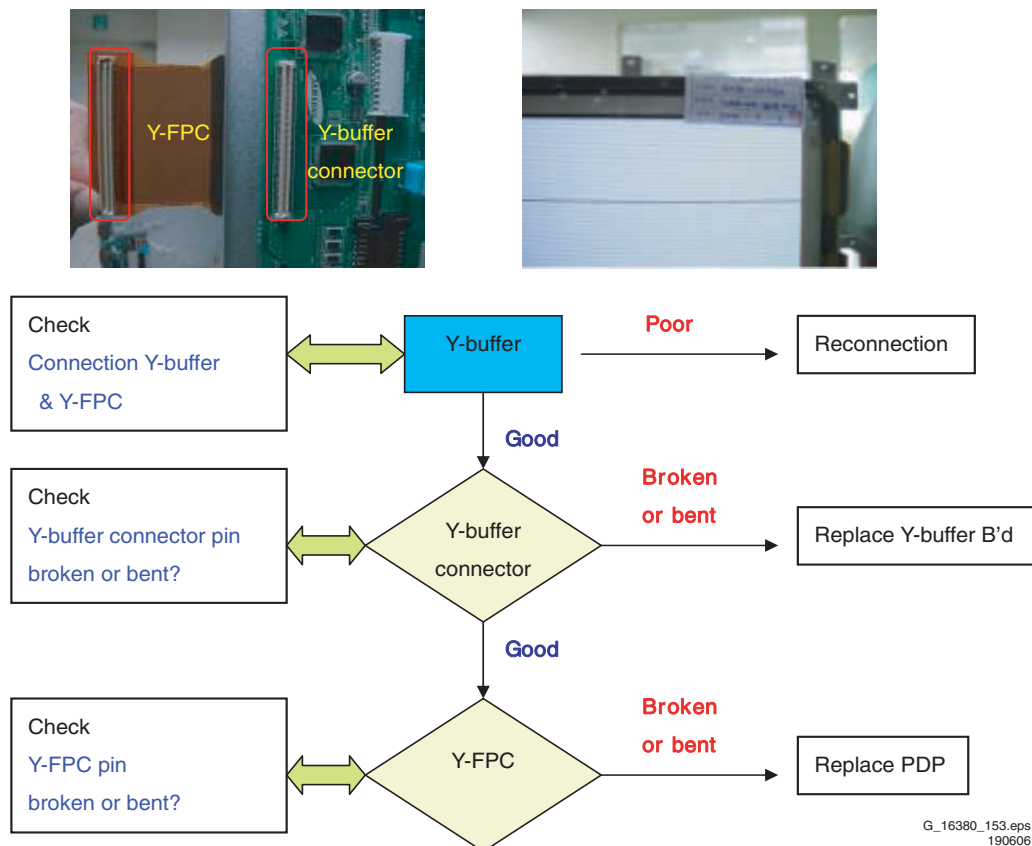


Figure 5-43 Fault symptom: "Horizontal line or block open"

5.2.6 Address open

(some vertical lines don't exist on screen)

-> Address Open is related with Logic Main, Logic Buffer, FFC, TCP and so on.

This page shows you how to check the boards, and the following pages show you how to find the defective board.

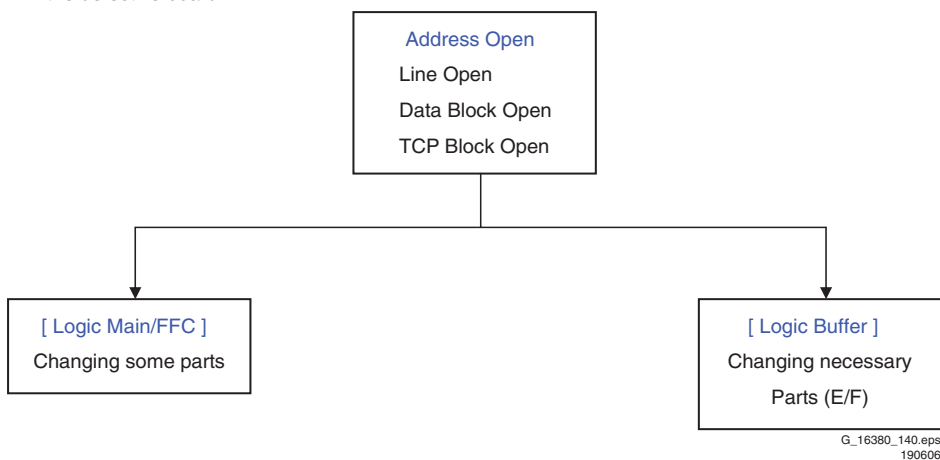


Figure 5-44 Fault symptom: "Address open" 1/2

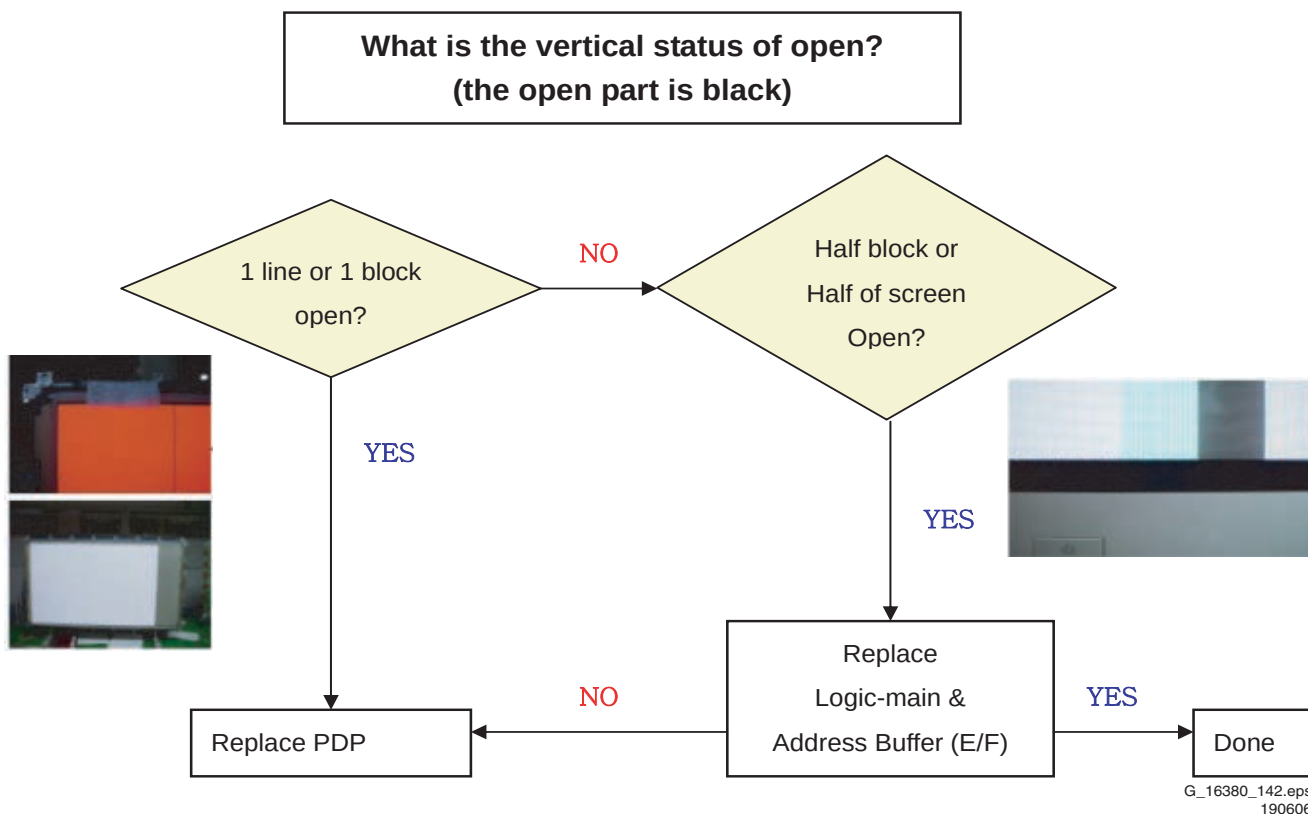


Figure 5-45 Fault symptom: "Address open" 2/2

5.2.7 Address short

(some vertical lines appear to be linked on screen)

-> Address Short is related with Logic Main, Logic Buffer, FFC, TCP and so on.

This page shows you how to check the boards, and the following pages show you how to find the defective board.

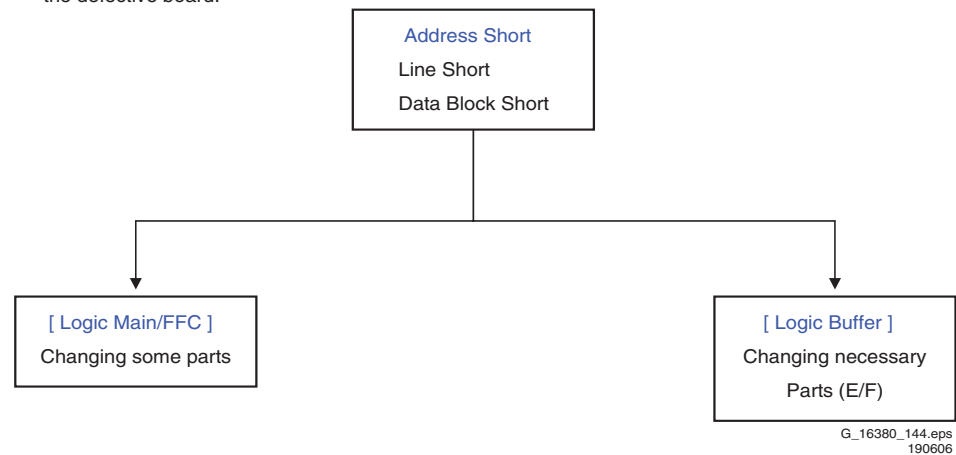


Figure 5-46 Fault symptom: "Address short" 1/2

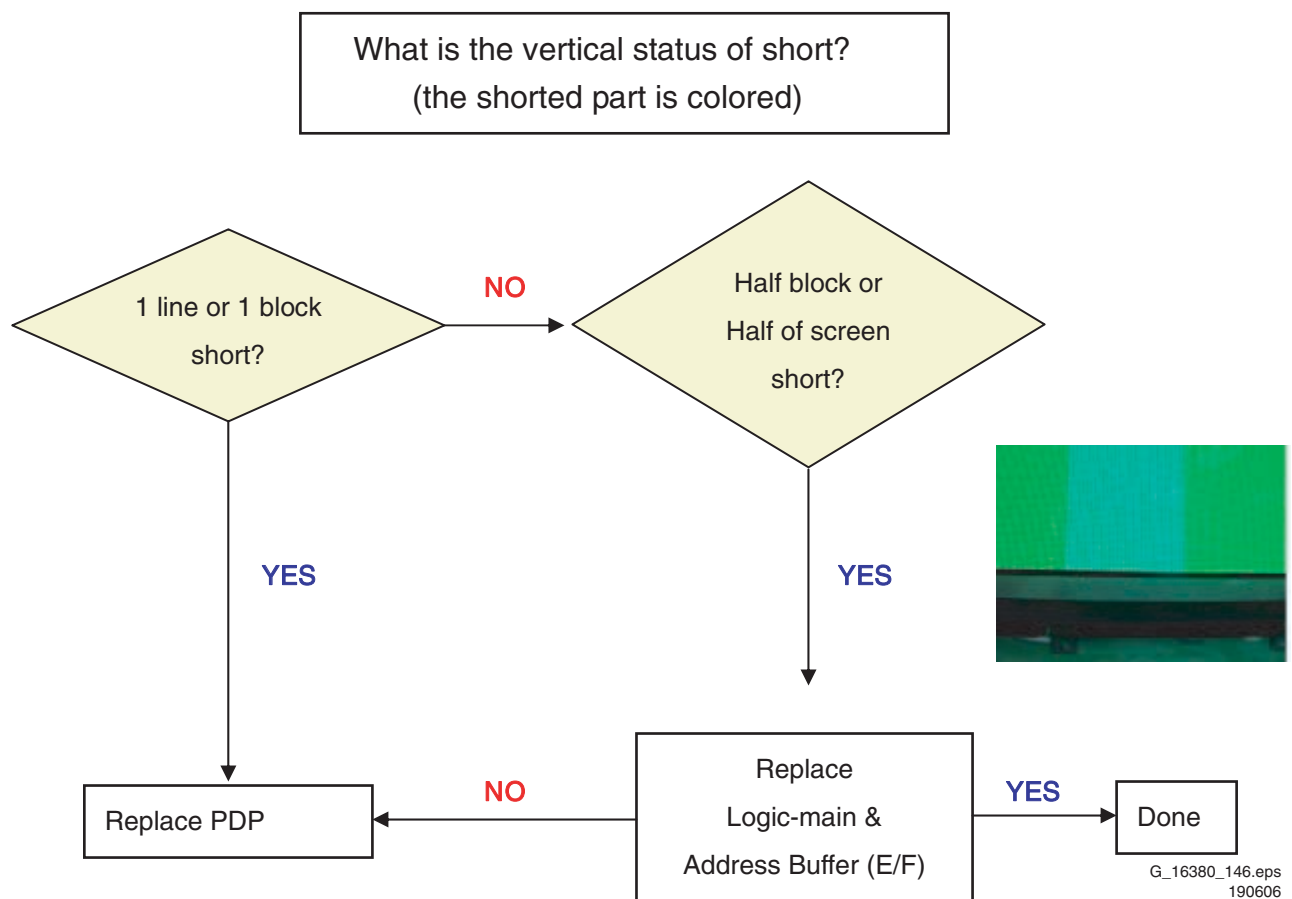


Figure 5-47 Fault symptom: "Address short" 2/2

5.2.8 Criteria for Panel Replacement, due to Defective Panel Cells

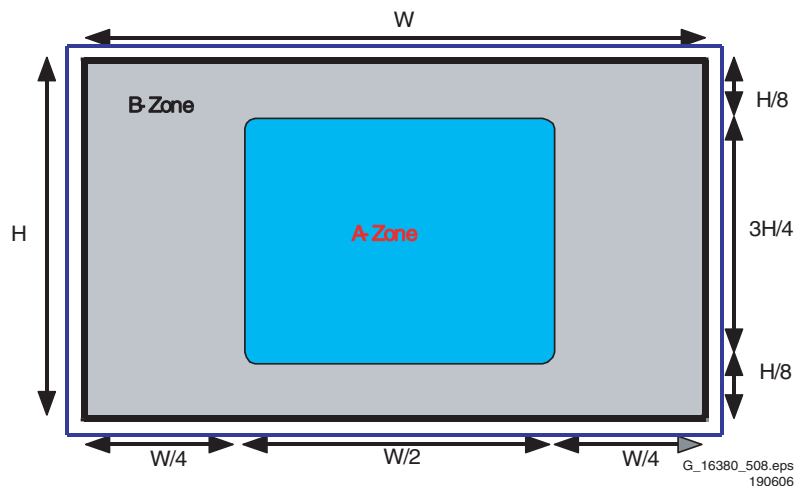


Figure 5-48 Panel zones 42" SD v5

Item	Specification	
	Number of cell defects	Distance between cell defects
Non-lighting cell defect	Zone A: 0 and less Zone B: 4 and less	Regardless of A and B zone 1 Cell Defect in an area of 50 * 50 mm
Non-extinguishing cell defect	Zone A: 0 Zone B: 1	
Flickering cell defect	Zone A: 0 Zone B: 1	
High Intensity Cell defect	Zone A: 0 Zone B: 0	
Adjacent cell defect	Zone A: 0 Zone B: 0	
Total cell defects	6 and less	

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190606

Figure 5-49 Criteria for panel replacement 42" SD v5

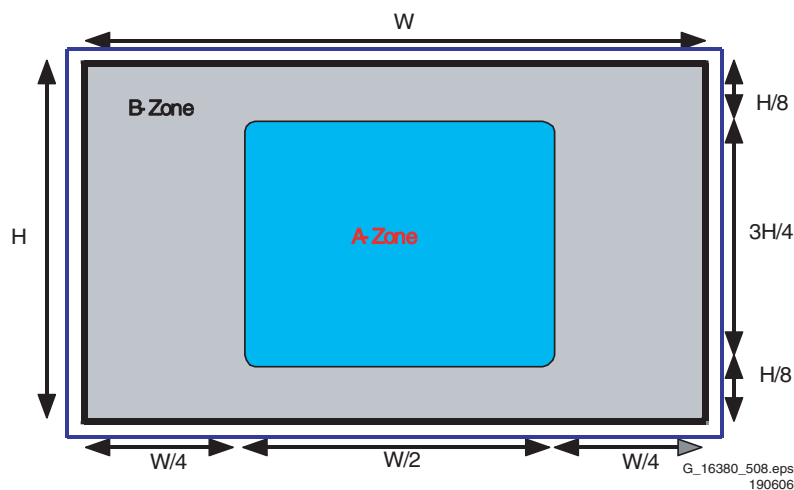


Figure 5-50 Panel zones 42" HD w1

Item	Specification	
	Number of cell defects	Distance between cell defects
Non-lighting cell defect	Zone A: 4 and less Zone B: 8 and less	Regardless of A and B zone, 1 Cell Defect in an area of 50mm*50mm
Non-extinguishing cell defect	Zone A: 0 Zone B: 1 and less	
Flickering cell defect	Zone A: 0 Zone B: 1 and less	
High Intensity Cell defect	Zone A: 0 Zone B: 1 and less (Only Red & Blue)	
Adjacent cell defect	Zone A: 0 Zone B: 1 and less (Only Red & Blue)	
Total cell defects	12 and less	

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190606

Figure 5-51 Criteria for panel replacement 42" HD w1

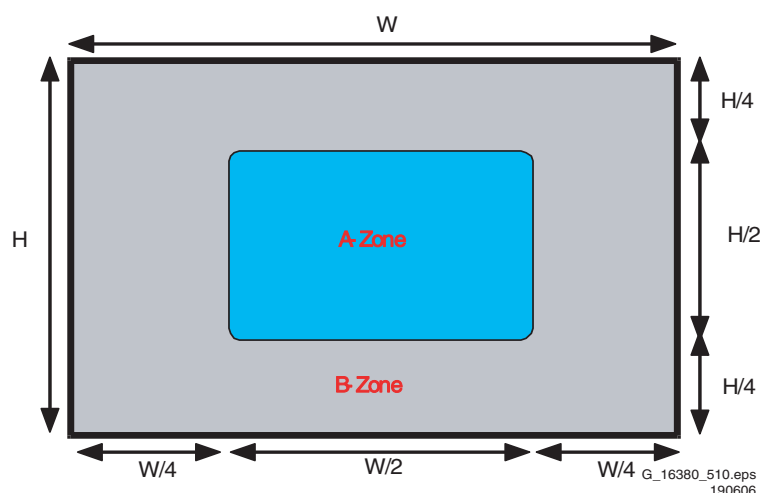
G_16380_510.eps
190606

Figure 5-52 Panel zones 50" HD w1

Item	Specification	
	Number of cell defects	Distance between cell defects
Non-lighting cell defect	Zone A: 4 and less Zone B: 8 and less	Regardless of A and B zone, 1 Cell Defect in an area of 50mm*50mm
Non-extinguishing cell defect	Zone A: 0 Zone B: 1 and less	
Flickering cell defect	Zone A: 0 Zone B: 1 and less	
High Intensity Cell defect	Zone A: 0 Zone B: 1 and less (Only Red & Blue)	
Adjacent cell defect	Zone A: 0 Zone B: 1 and less (Only Red & Blue)	
Total cell defects	12 and less	

G_16380_511.eps
190606

Figure 5-53 Criteria for panel replacement 50" HD w1

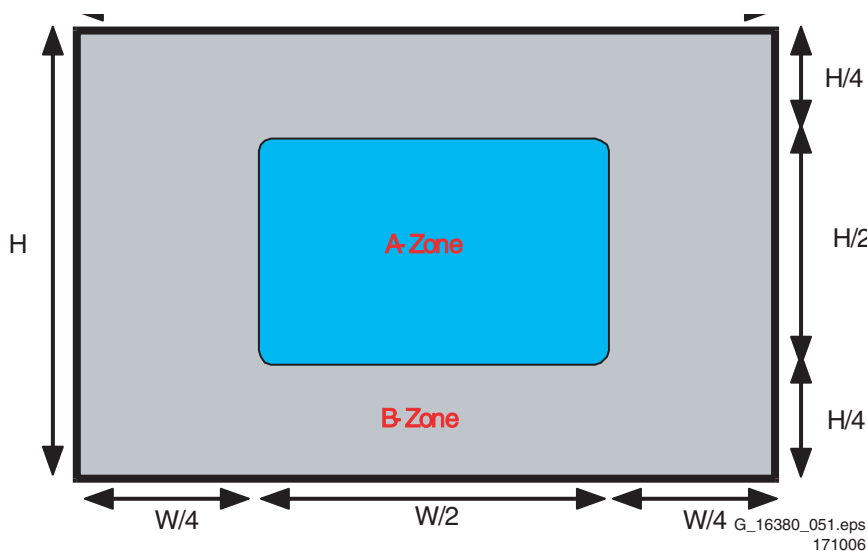


Figure 5-54 Panel zones 63” HD v4

Item	Specification	
	Number of cell defects	Distance between cell defects
Non-lighting cell defect	Zone A: 2 and less Zone B: 8 and less	Regardless of A and B zone, 1 Cell Defect in an area of 50mm*50mm
Non-extinguishing cell defect	Zone A: 0 Zone B: 1 and less	
Flickering cell defect	Zone A: 0 Zone B: 1 and less	
High Intensity Cell defect	Zone A: 0 Zone B: 1 and less (No green cell)	
Adjacent cell defect	Zone A: 0 Zone B: 1 and less (No green cell)	
Total cell defects	10 and less	

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171006

Figure 5-55 Criteria for panel replacement 63” HD v4

5.2.9 Overview

Table 5-2 Overview of faults and cures

Condition Name	Description	Related Board
No output voltage	Operating voltages don't exist.	SMPS
No display	Operating voltages exist, but no image on screen	Y-MAIN, X-MAIN, Logic Main, Cables
Abnormal display	Abnormal Image (not open or short) is on screen.	Y-MAIN, X-MAIN, Logic Main
Sustain open	Some horizontal lines are missing on screen	Scan Buffer, FPC of X / Y
Sustain short	Some horizontal lines appear to be linked on screen	Scan Buffer, FPC of X / Y
Address open	Some vertical lines are missing on screen	Logic Main, Logic Buffer, FFC,TCP
Address short	Some vertical lines appear to be linked on screen	Logic Main, Logic Buffer, FFC,TCP
Defective panel cells	Some cells seem to be defective	Check criteria for replacement of the panel

6. Block Diagrams, Test Point Overview, and Waveforms

Index of this chapter:

- 6.1 Block Diagram for Drive Circuits

6.2 Block Diagram for Logic Circuit

6.3 PSU

6.3.1 PSU Layout, Display Types 42" SD v5, 42" HD w1, and 50" HD w1
- 6.3.2 PSU Layout, Display Type 63" HD v4

6.3.3 Voltage Level Overview 42" SD v5

6.3.4 Voltage Level Overview 42" HD w1

6.3.5 Voltage Level Overview 50" HD w1

6.3.6 Voltage Level Overview 63" HD v4

6.1 Block Diagram for Drive Circuits

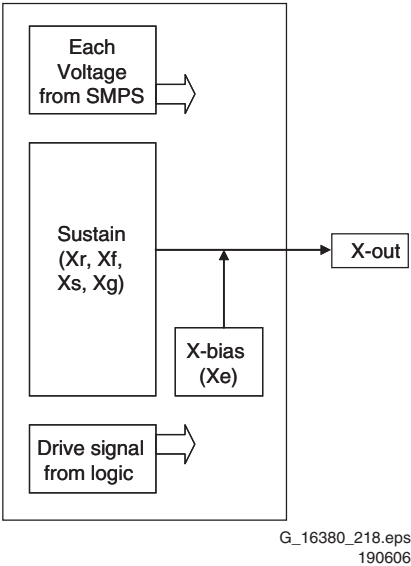


Figure 6-1 Block diagram X-Main Board

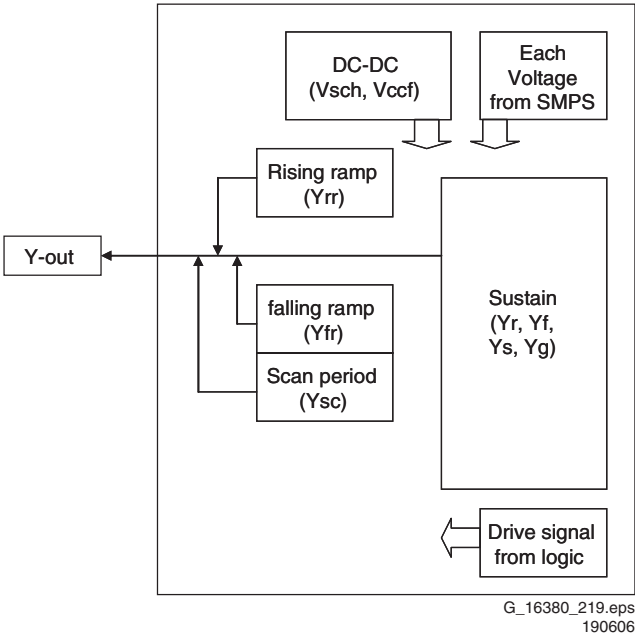


Figure 6-2 Block diagram Y-Main Board

6.2 Block Diagram for Logic Circuit

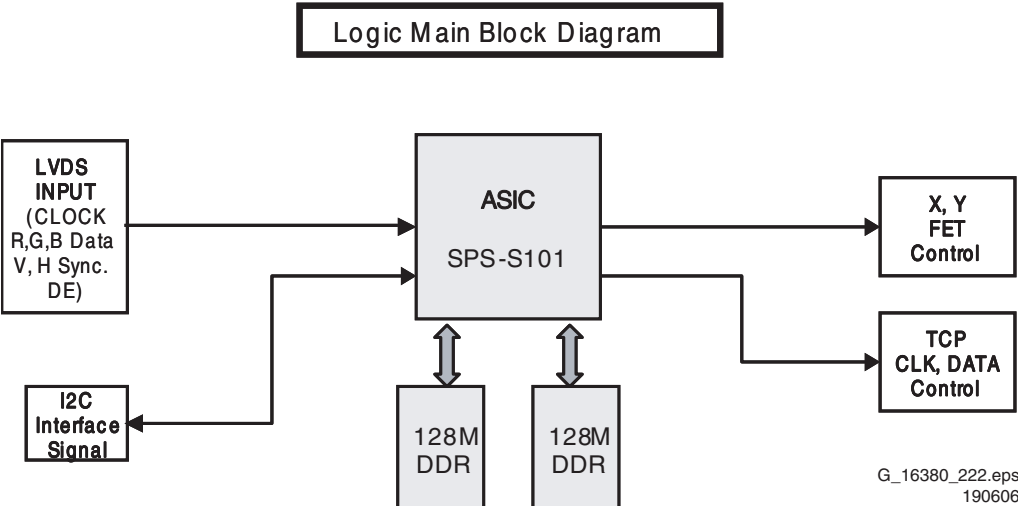


Figure 6-3 Block diagram (42" SD v5)

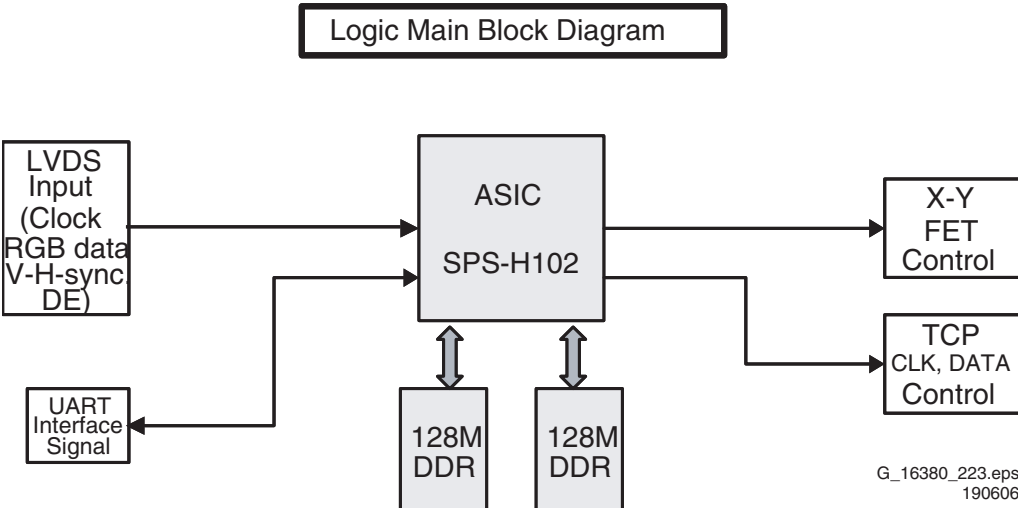


Figure 6-4 Block diagram (42" HD w1)

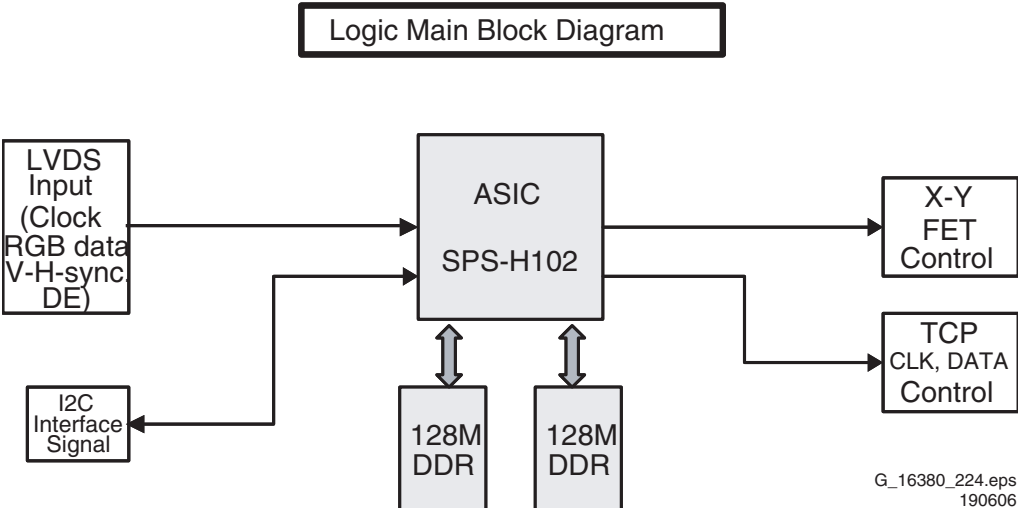


Figure 6-5 Block diagram (50" HD w1 and 63" HD v4)

6.3 PSU

6.3.1 PSU Layout, Display Types 42" SD v5, 42" HD w1, and 50" HD w1

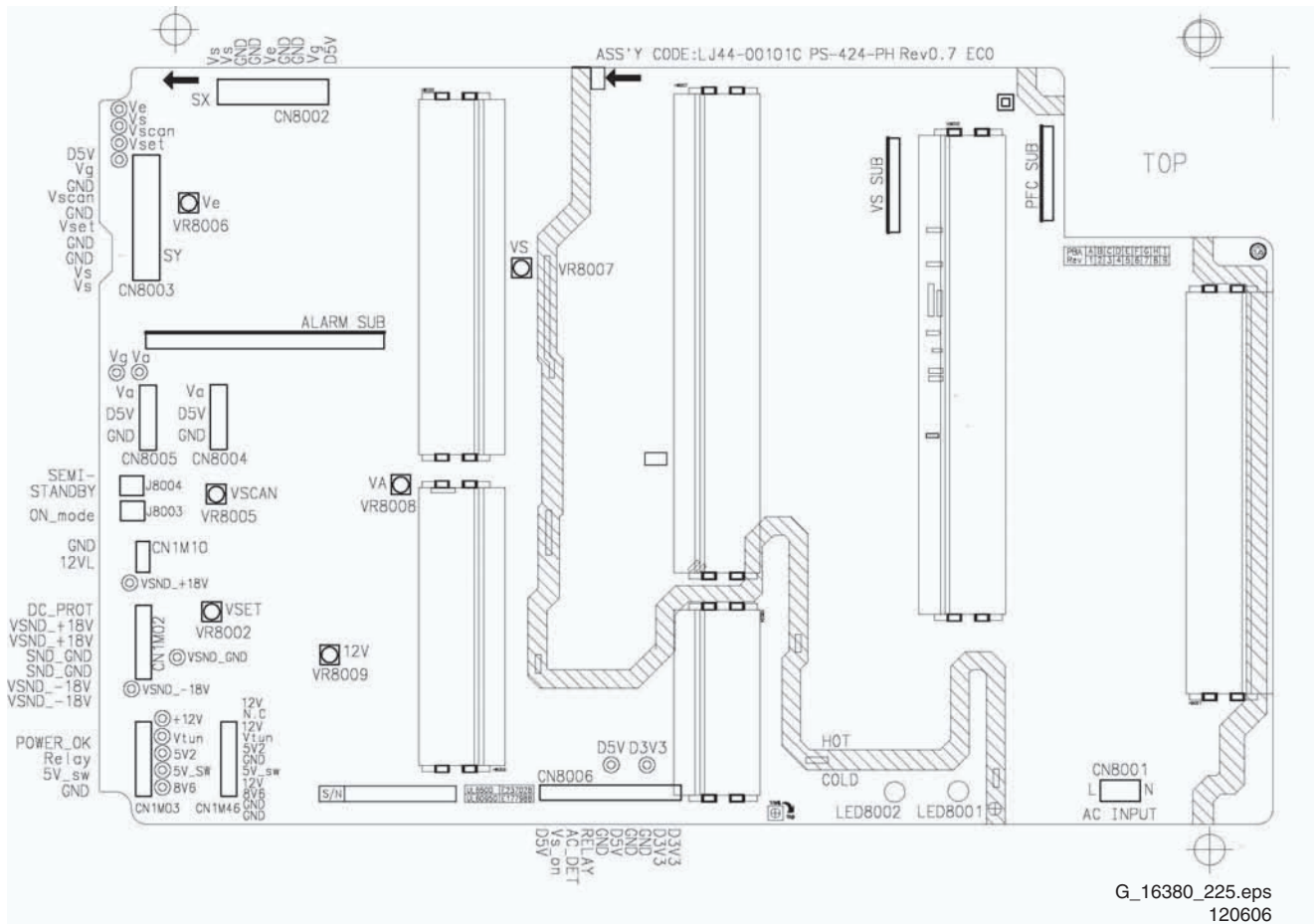


Figure 6-6 PSU layout (42" SD v5, 42" HD w1, and 50" HD w1)

6.3.2 PSU Layout, Display Type 63" HD v4

Package 1, Main Supply

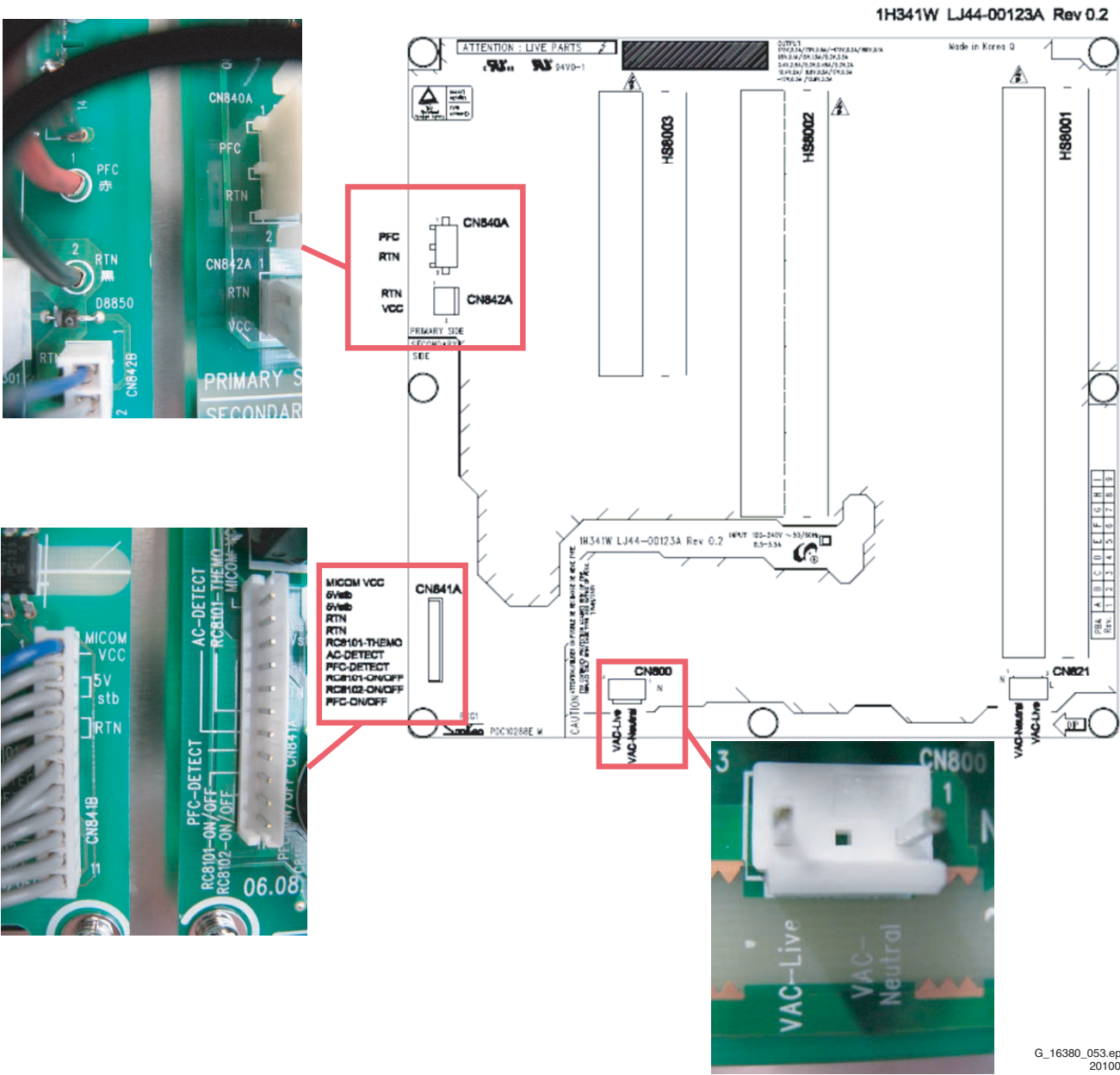


Figure 6-7 PSU layout (63" HD v4, Main PSU)

Package 2, Sub Supply

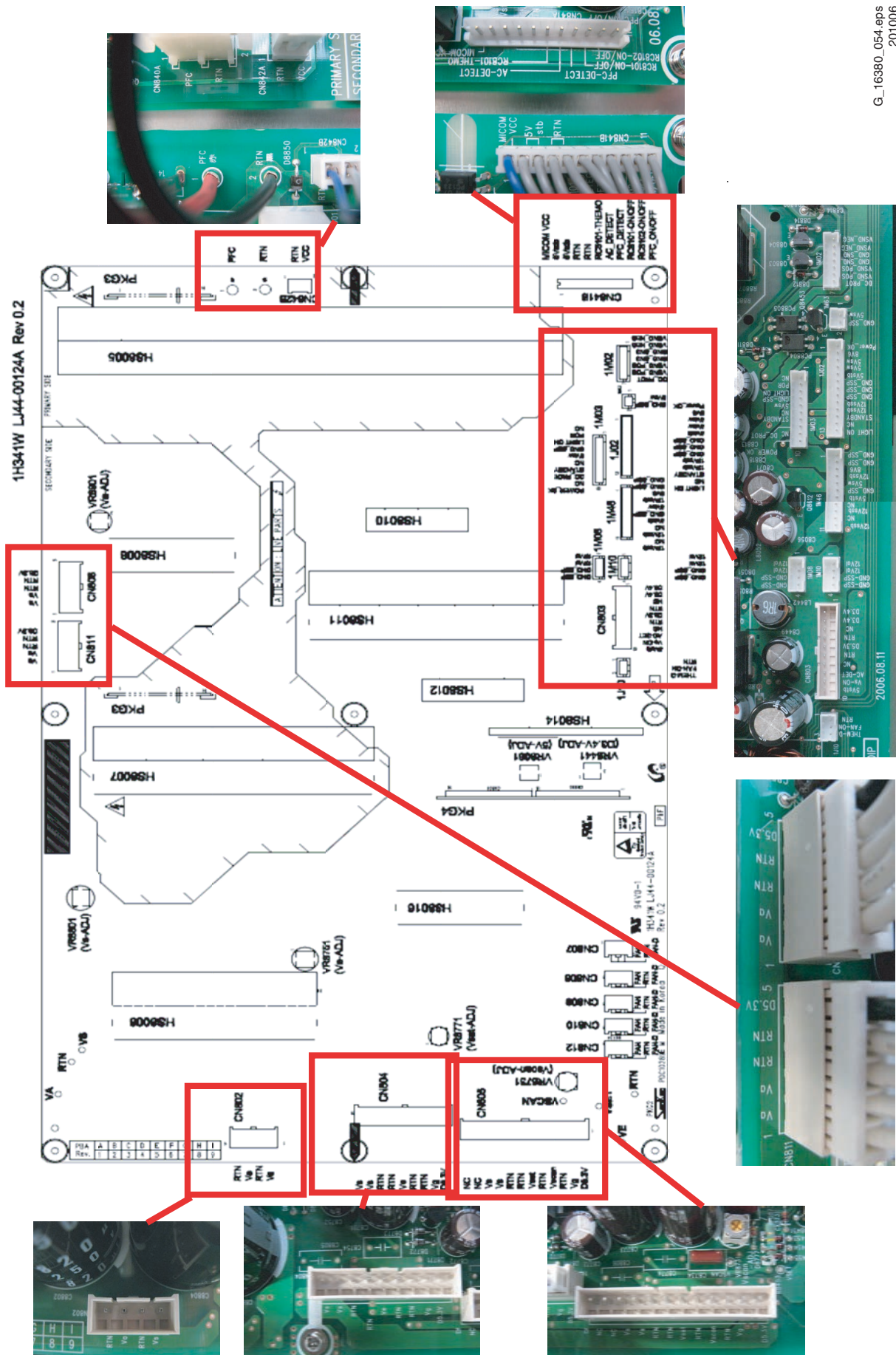


Figure 6-8 PSU layout (63" HD v4, Sub PSU))

6.3.3 Voltage Level Overview 42" SD v5

Table 6-1 Voltage level overview (also refer to the sticker on the rear side of the panel)

No	Output voltage (V)	Voltage Setting (Normal Load)	Output Voltage Range
1	VS	207 V $\pm$ 1 %	195 V ~ 215 V
2	VA	65 V $\pm$ 1.5 %	50 V ~ 70 V
3	VE	110 V $\pm$ 1.5 %	70 V ~ 110 V
4	VSET	201 V $\pm$ 1.5 %	180 V ~ 210 V
5	VSCAN	-190 V $\pm$ 1.5 %	-190 V ~ -170 V
6	VSB	5 V $\pm$ 5 %	Fixed
7	VG	15 V $\pm$ 5 %	Fixed
8	D5VL	5.2 V $\pm$ 5 %	Fixed
9	D3V3	3.3 V $\pm$ 5 %	Fixed
Check voltage label on the PDP for correct values.			

6.3.4 Voltage Level Overview 42" HD w1

Table 6-2 Voltage level overview (also refer to the sticker on the rear side of the panel)

No	Output voltage (V)	Voltage Setting (Normal Load)	Output Voltage Range
1	VS	200 V $\pm$ 1.5 %	198 V ~ 202 V
2	VA	65 V $\pm$ 1.5 %	63 V ~ 67 V
3	VE	110 V $\pm$ 1.5 %	105 V ~ 115 V
4	VSET	195 V $\pm$ 1.5 %	193 V ~ 197 V
5	VSCAN	-190 V $\pm$ 1.5 %	-192 V ~ -188 V
6	VG	15 V $\pm$ 5 %	Fixed
7	D5VL	5.2 V $\pm$ 5 %	Fixed
8	D3V3	3.3 V $\pm$ 5 %	Fixed
Check voltage label on the PDP for correct values.			

6.3.5 Voltage Level Overview 50" HD w1

Table 6-3 Voltage level overview (also refer to the sticker on the rear side of the panel)

No	Output voltage (V)	Voltage Setting (Normal Load)	Output Voltage Range
1	VS	202 V $\pm$ 1 %	190 V ~ 210 V
2	VA	65 V $\pm$ 1.5 %	55 V ~ 75 V
3	VE	115 V $\pm$ 1.5 %	110 V ~ 130 V
4	VSET	190 V $\pm$ 1.5 %	170 V ~ 200 V
5	VSCAN	-190 V $\pm$ 1.5 %	-210 V ~ -180 V
6	VSB	5 V $\pm$ 5 %	Fixed
7	VG	15 V $\pm$ 5 %	Fixed
8	D5VL	5.2 V $\pm$ 5 %	Fixed
9	D3V3	3.3 V $\pm$ 5 %	Fixed
Check voltage label on the PDP for correct values.			

6.3.6 Voltage Level Overview 63" HD v4

Table 6-4 Voltage level overview (also refer to the sticker on the rear side of the panel)

No	Output voltage (V)	Voltage Setting (Normal Load)	Output Voltage Range
1	VS	184 V $\pm$ 1 %	165 V ~ 190 V
2	VA	72 V $\pm$ 1.5 %	60 V ~ 85 V
3	VE	88 V $\pm$ 1.5 %	80 V ~ 110 V
4	VSET	178 V $\pm$ 1.5 %	160 V ~ 200 V
5	VSCAN	-160 V $\pm$ 1.5 %	-190 V ~ -155 V
6	VSB	5 V $\pm$ 5 %	Fixed
7	VG	15 V $\pm$ 5 %	Fixed
8	D5VL	5.3 V $\pm$ 5 %	Fixed
9	D3V3	3.4 V $\pm$ 5 %	Fixed
Check voltage label on the PDP for correct values.			

7. Circuit Diagrams and PWB Layouts

Not applicable.

8. Alignments

Index of this chapter:

- 8.1 Power Supply Voltages
- 8.2 Waveform Alignments 42" SD v5
- 8.3 Waveform Alignments 42" HD w1
- 8.4 Waveform Alignments 50" HD w1
- 8.5 Waveform Alignments 63" HD v4

Note:

- Figures can deviate due to the different model executions.

Important: Remove all non-default jumpers and reset all DIP switches, after the repair!

8.1 Power Supply Voltages

8.1.1 Location of potentiometers and test points on the PSU of 42"SD v5, 42" HD w1, and 50" HD w1

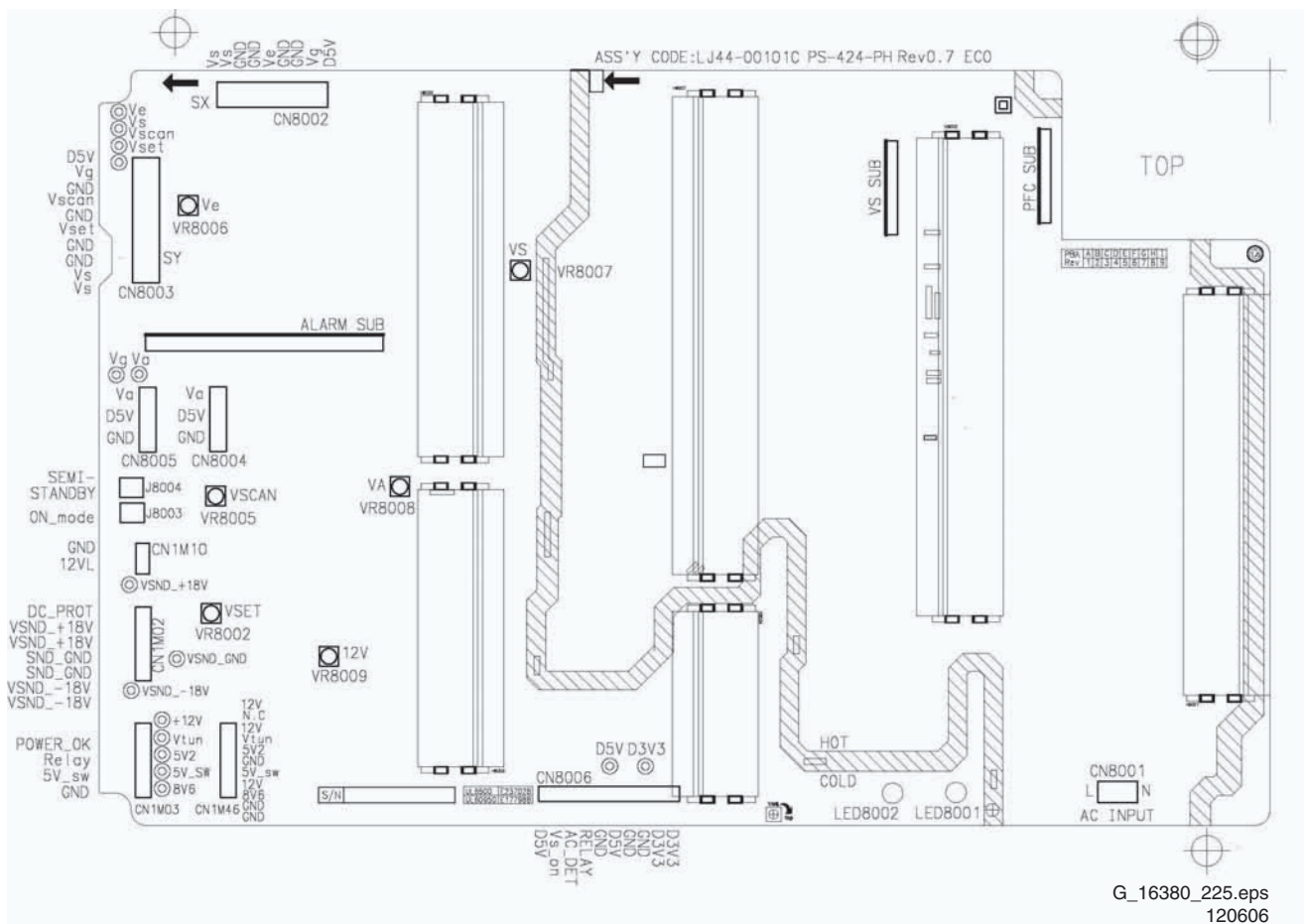


Figure 8-1 Location of potentiometers and test points on the PSU of 42"SD v5, 42" HD w1, and 50" HD w1

8.1.2 Location of potentiometers and test points on the PSU of 63" HD v4

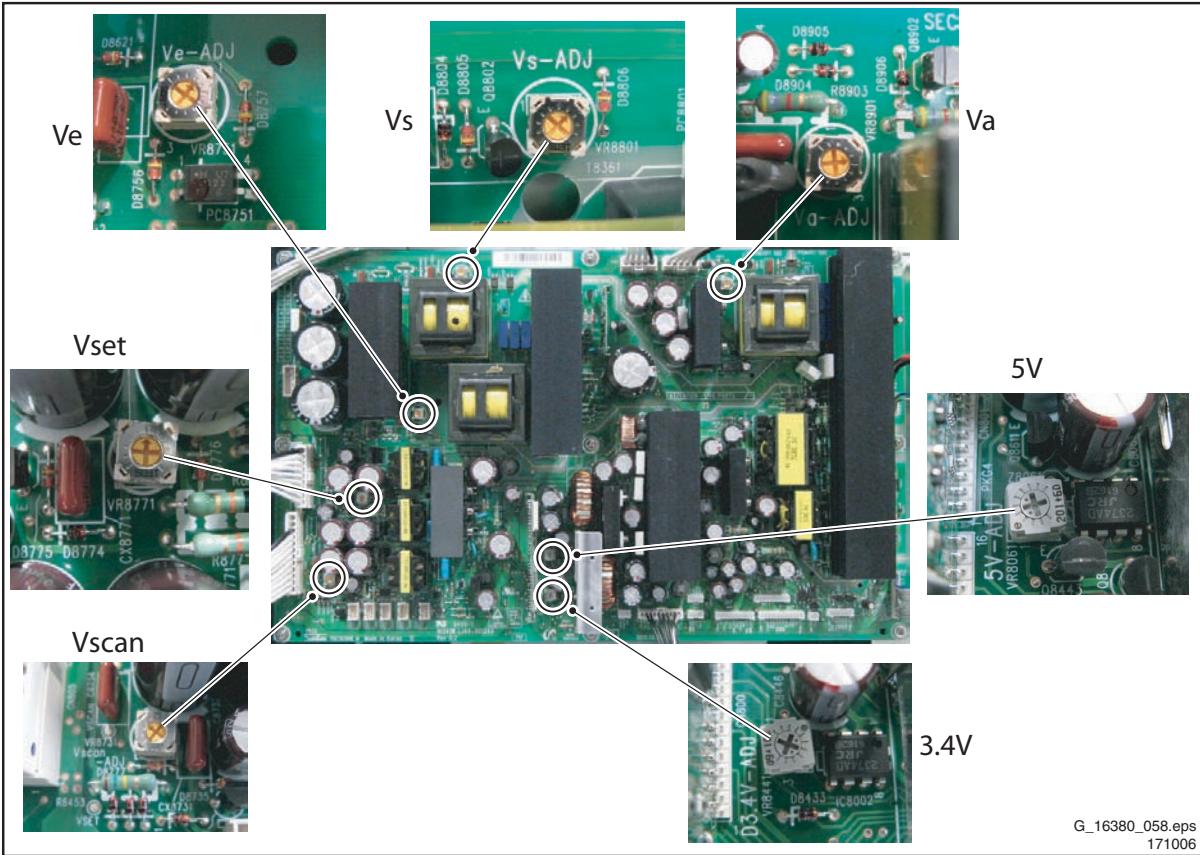


Figure 8-2 Location of potentiometers on the PSU of 63" HD v4

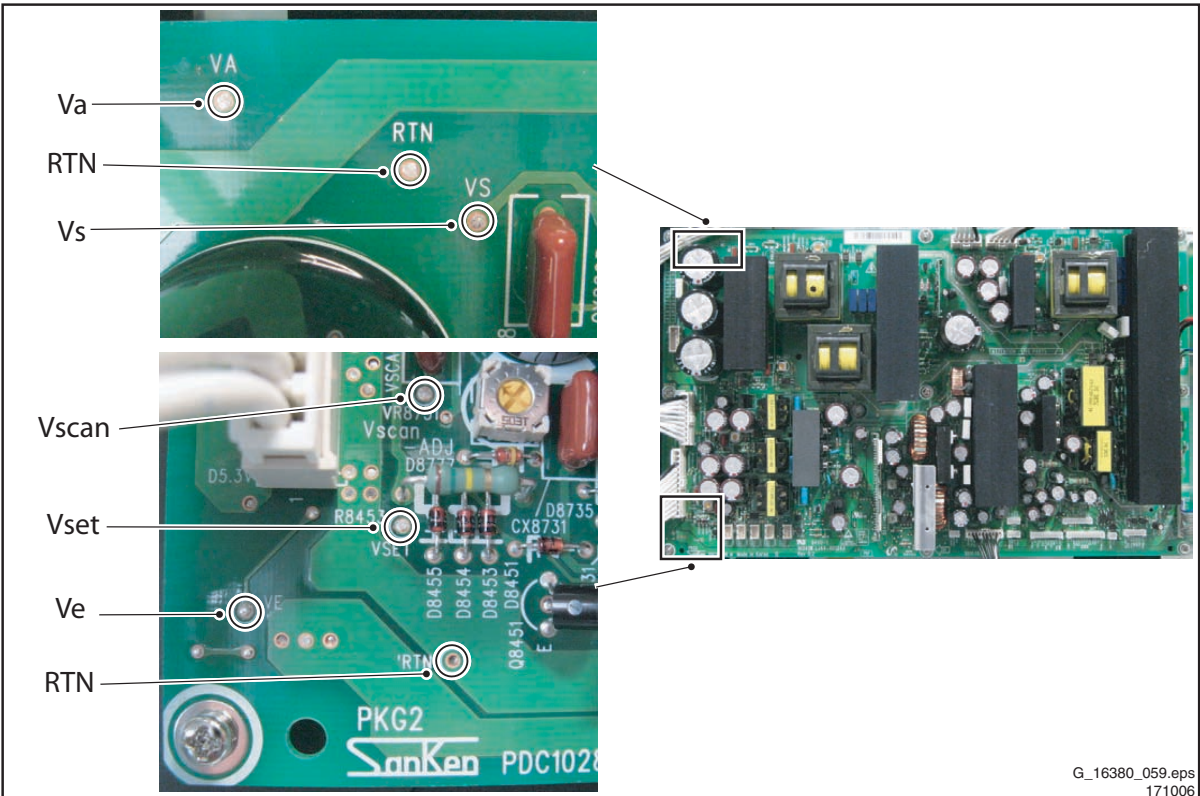


Figure 8-3 Location of test points on the PSU of 63" HD v4

8.1.3 Adjustment Power Supply Voltages 42" SD v5

Table 8-1 Adjustment voltage level overview (also refer to the sticker on the rear side of the panel)

No	Output voltage (V)	Voltage Setting (Normal Load)	Output Voltage Range
1	VS	207 V ± 1 %	195 V ~ 215 V
2	VA	65 V ± 1.5 %	50 V ~ 70 V
3	VE	110 V ± 1.5 %	70 V ~ 110 V
4	VSET	201 V ± 1.5 %	180 V ~ 210 V
5	VSCAN	-190 V ± 1.5 %	-190 V ~ -170 V
6	VSB	5 V ± 5 %	Fixed
7	VG	15 V ± 5 %	Fixed
8	D5VL	5.2 V ± 5 %	Fixed
9	D3V3	3.3 V ± 5 %	Fixed

Check voltage label on the PDP for correct values.

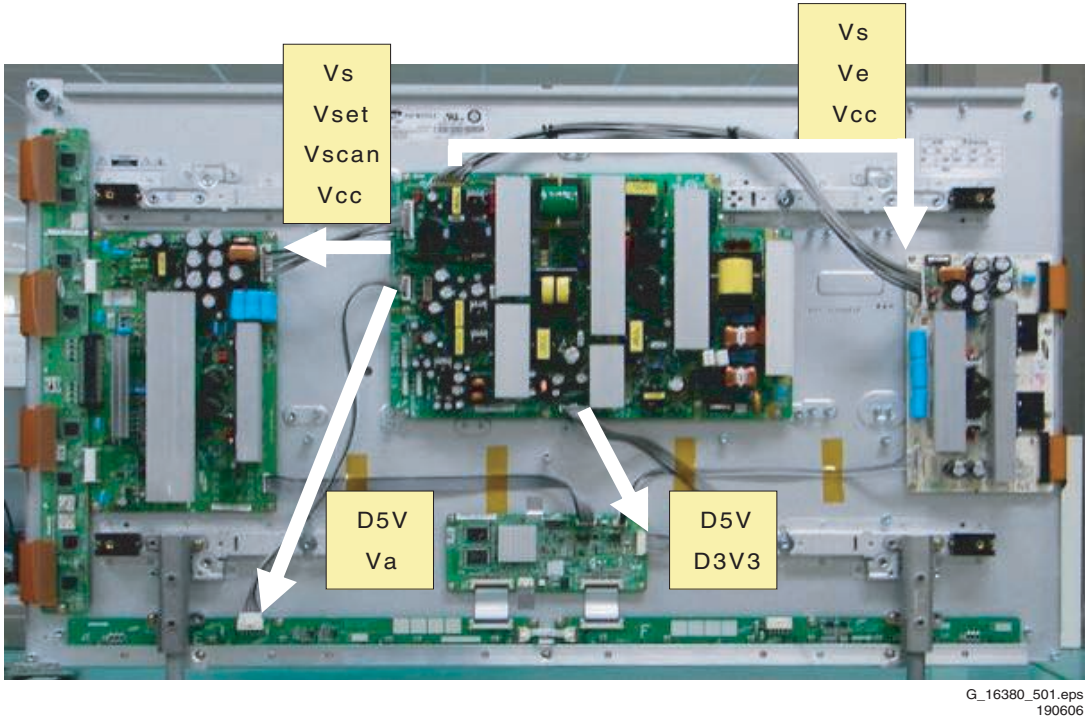


Figure 8-4 Location of the supply lines from the PSU to the boards - 42" SD v5

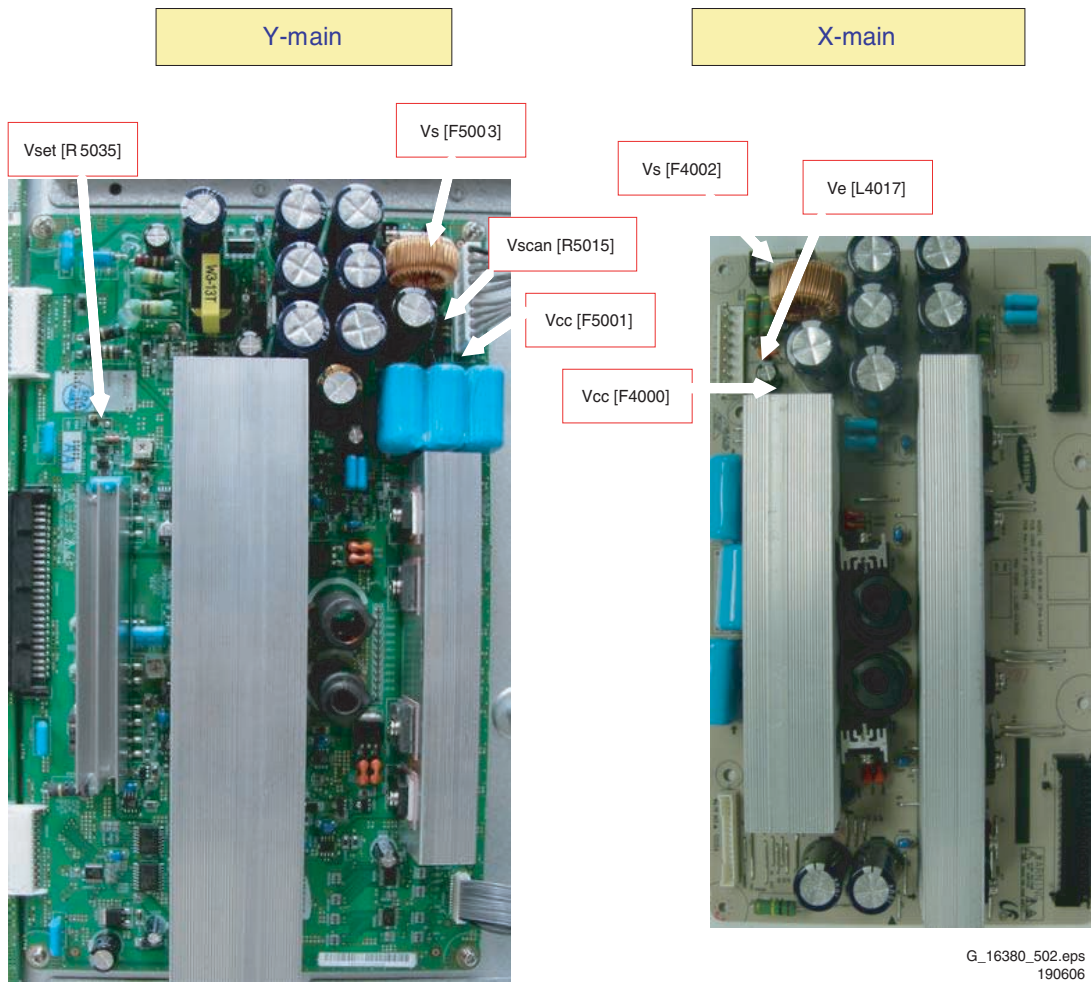


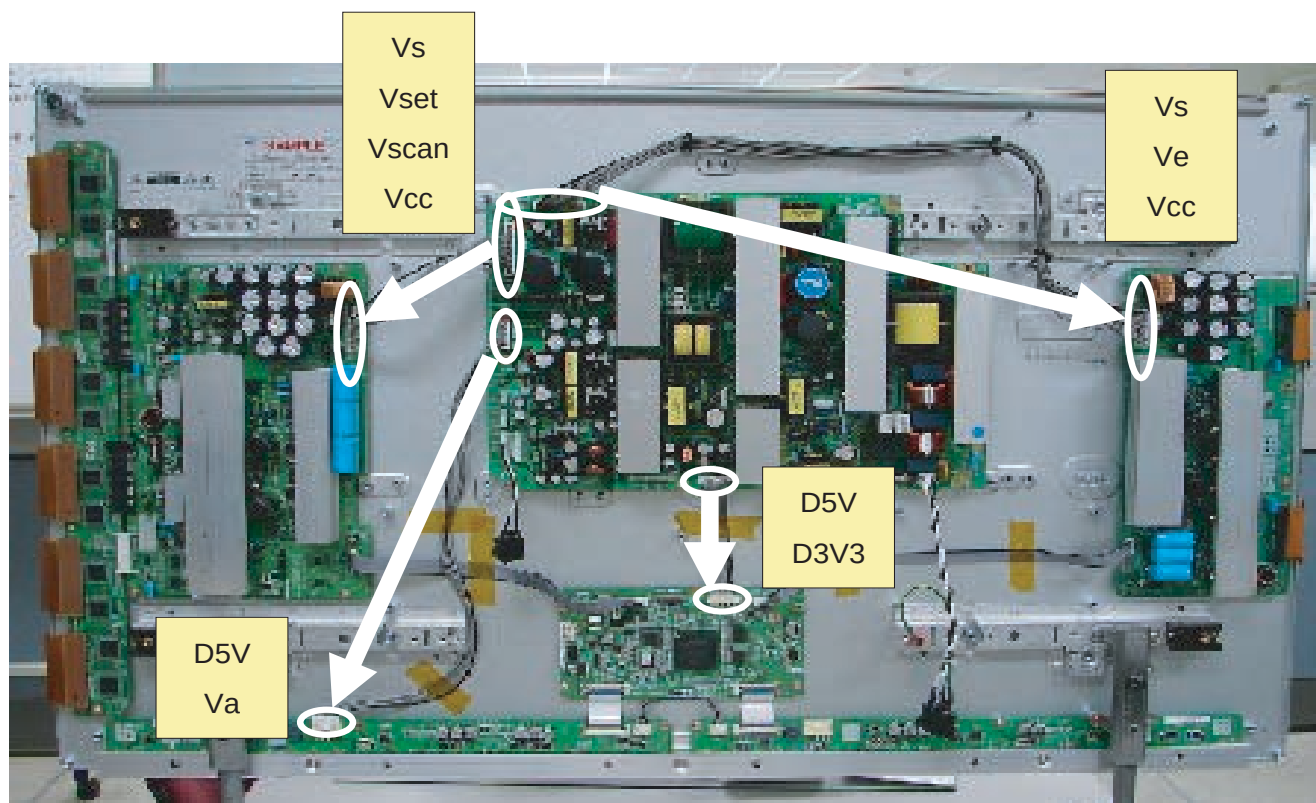
Figure 8-5 Location of the test points for the supply voltages - 42" SD v5

8.1.4 Adjustment Power Supply Voltages 42" HD w1

Table 8-2 Adjustment voltage level overview (also refer to the sticker on the rear side of the panel)

No	Output voltage (V)	Voltage Setting (Normal Load)	Output Voltage Range
1	VS	200 V ± 1.5 %	198 V ~ 202 V
2	VA	65 V ± 1.5 %	63 V ~ 67 V
3	VE	110 V ± 1.5 %	105 V ~ 115 V
4	VSET	195 V ± 1.5 %	193 V ~ 197 V
5	VSCAN	-190 V ± 1.5 %	-192 V ~ -188 V
6	VG	15 V ± 5 %	Fixed
7	D5VL	5.2 V ± 5 %	Fixed
8	D3V3	3.3 V ± 5 %	Fixed

Check voltage label on the PDP for correct values.

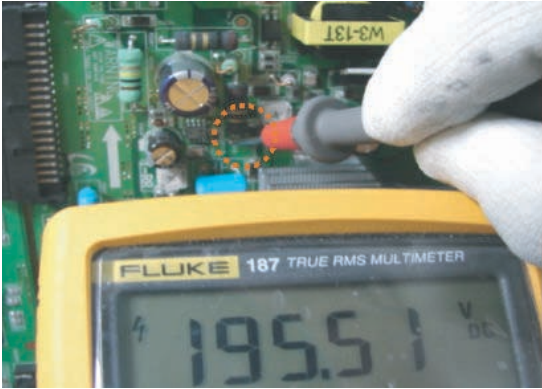


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Figure 8-6 Location of the supply lines from the PSU to the boards - 42" HD w1

Drive board's voltage check point

Y- main Voltage Check Point

	
YM Vs (200V) – F5003	YM Vscan (-190V) – R5081
	
YM Vsch (-70V) – Vsch TP	YM Vset (195V) – R5048
	
YM 5.5V (5.5V) – F5001	YM Vccf (Vscan + 15V) – Vccf TP
	
YM Vcc (15V) – F5004	

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Figure 8-7 Location of the test points for the supply voltages - Y-main - 42” HD w1

X-main Voltage Check Point

	
Vs (200V) – F4003	Ve (110V) – F4005
	
Vcc (15V) – F4001	5.5V (5.5V) – F4004

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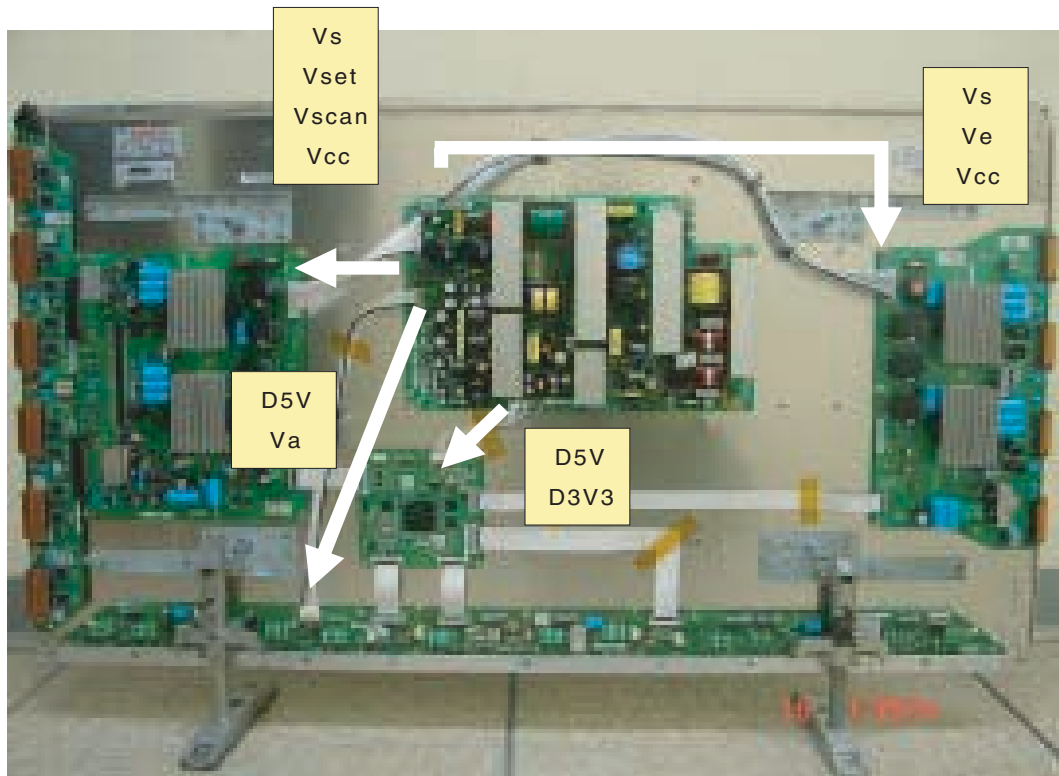
Figure 8-8 Location of the test points for the supply voltages - X-main - 42" HD w1

8.1.5 Adjustment Power Supply Voltages 50" HD w1

Table 8-3 Adjustment voltage level overview (also refer to the sticker on the rear side of the panel)

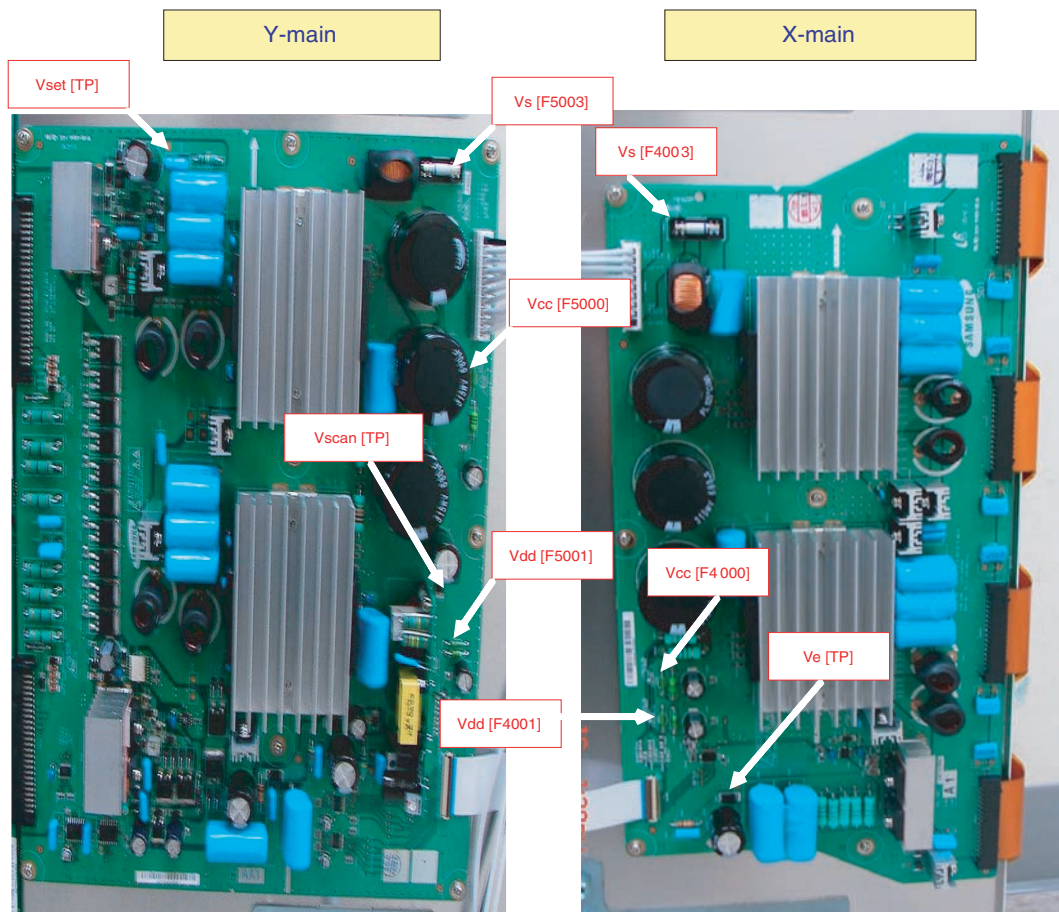
No	Output voltage (V)	Voltage Setting (Normal Load)	Output Voltage Range
1	VS	202 V ± 1 %	190 V ~ 210 V
2	VA	65 V ± 1.5 %	55 V ~ 75 V
3	VE	115 V ± 1.5 %	110 V ~ 130 V
4	VSET	190 V ± 1.5 %	170 V ~ 200 V
5	VSCAN	-190 V ± 1.5 %	-210 V ~ -180 V
6	VSB	5 V ± 5 %	Fixed
7	VG	15 V ± 5 %	Fixed
8	D5VL	5.2 V ± 5 %	Fixed
9	D3V3	3.3 V ± 5 %	Fixed

Check voltage label on the PDP for correct values.



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Figure 8-9 Location of the supply lines from the PSU to the boards - 50" HD w1



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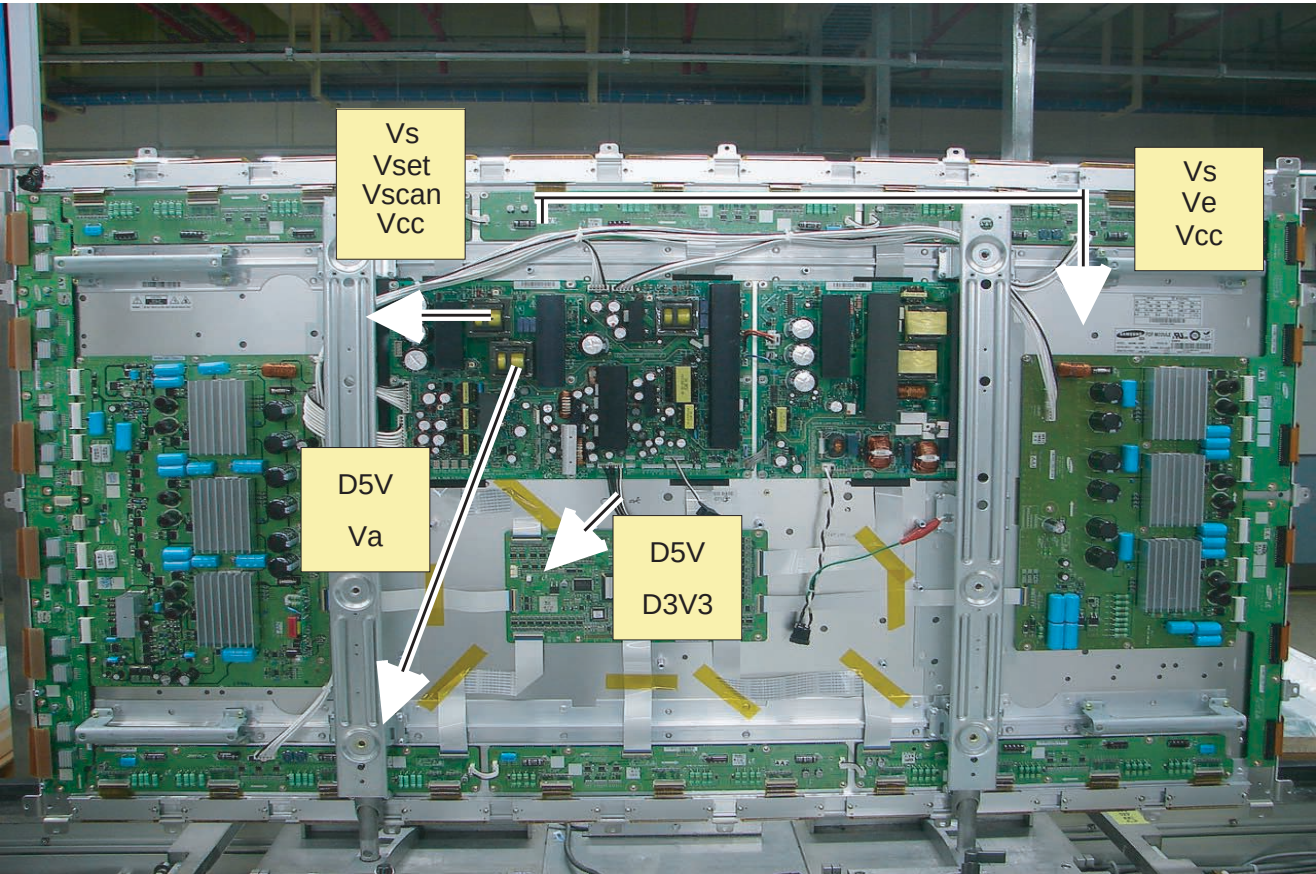
Figure 8-10 Location of the test points for the supply voltages - 50" HD w1

8.1.6 Adjustment Power Supply Voltages 63" HD v4

Table 8-4 Adjustment voltage level overview (also refer to the sticker on the rear side of the panel)

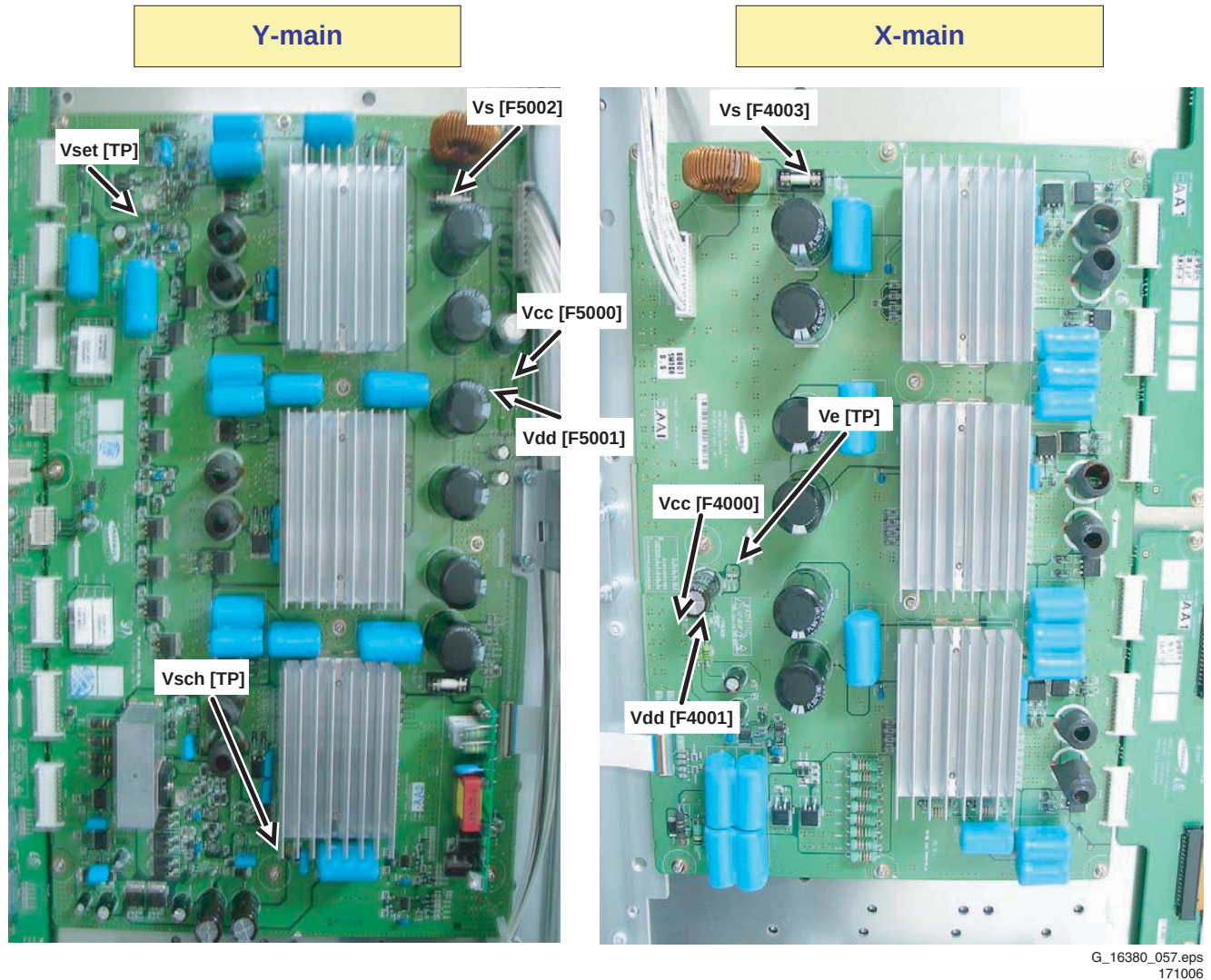
No	Output voltage (V)	Voltage Setting (Normal Load)	Output Voltage Range
1	Vs	184 V ± 1 %	165 V ~ 190 V
2	Va	72 V ± 1.5 %	60 V ~ 85 V
3	Ve	88 V ± 1.5 %	80 V ~ 110 V
4	Vset	178 V ± 1.5 %	160 V ~ 200 V
5	Vscan	-160 V ± 1.5 %	-190 V ~ -155 V
6	Vsb	5 V ± 5 %	Fixed
7	Vg	15 V ± 5 %	Fixed
8	D5VL	5.3 V ± 5 %	Fixed
9	D3V3	3.4 V ± 5 %	Fixed

Check voltage label on the PDP for correct values.



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Figure 8-11 Location of the supply lines from the PSU to the boards - 63" HD v4

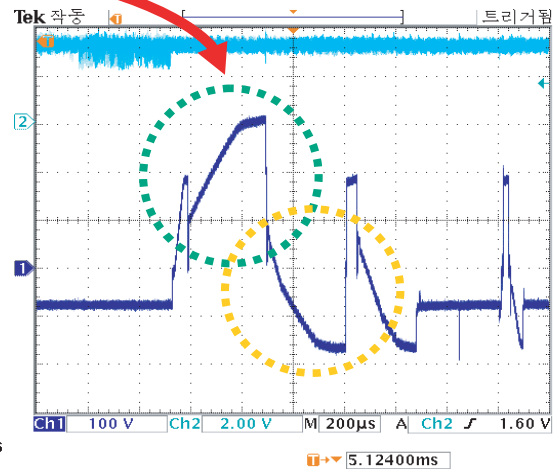
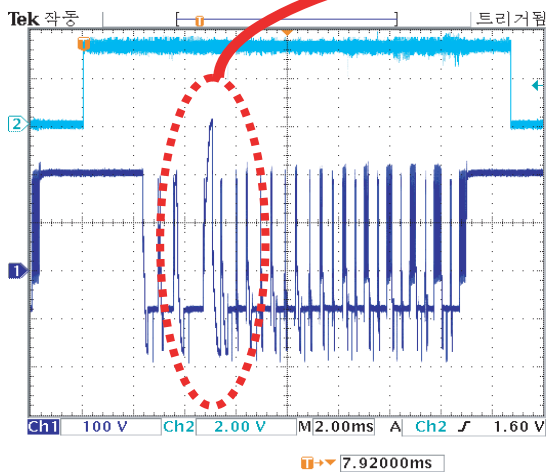


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Figure 8-12 Location of the test points for the supply voltages - 63" HD v4

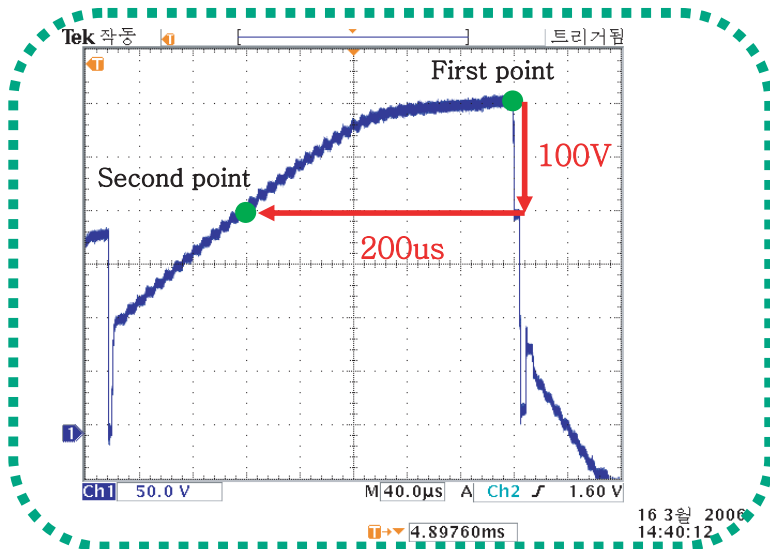
8.2 Waveform Alignments 42" SD v5

1. Set the pattern to Full White (put a jumper on pins 1 and 2 of CN2012 of the Logic Board).
2. Check the waveform using an Oscilloscope.
 - Triggering through V_TOGG of the LOGIC Board (see Figure "Logic PWB").
 - Connect the "OUT240" test point, located at the centre of the Y-buffer PWB, to the other channel, and then check the first Subfield waveform of one TV-Field.
 - Check the waveform by adjusting the Horizontal Division of the oscilloscope.
3. Adjust the waveform of the rising ramp with VR5000 (see Figure "Rising ramp waveform adjustment").
4. Adjust the waveform of the falling ramp with VR5001 (see Figure "Falling ramp waveform adjustment").



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Figure 8-13 Waveform adjustment (Y-Board) - 42 SD v5

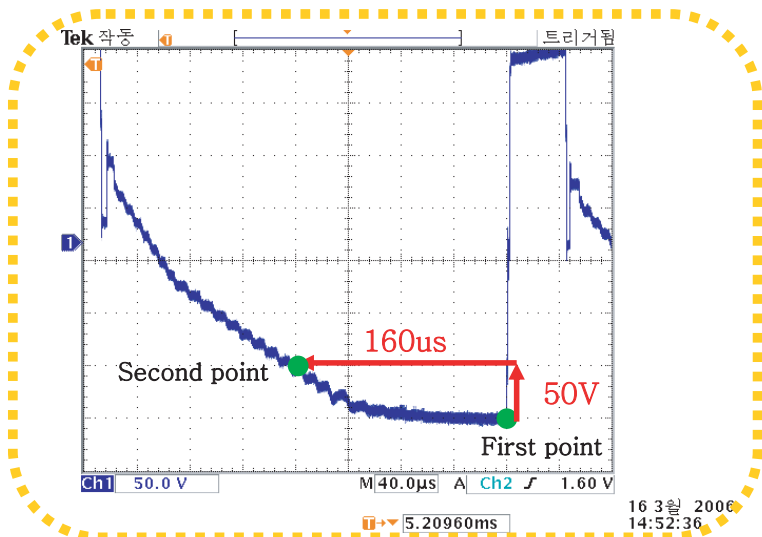


<Rising ramp>

The second point is located 100 V below and 200 usec before the first point.

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Figure 8-14 Rising ramp waveform (Y-Board) - 42 SD v5



<Falling ramp>

The second point is located 50 Volt above and 160 usec before the first point.

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Figure 8-15 Falling ramp flat time adjustment (Y-Board) - 42 SD v5

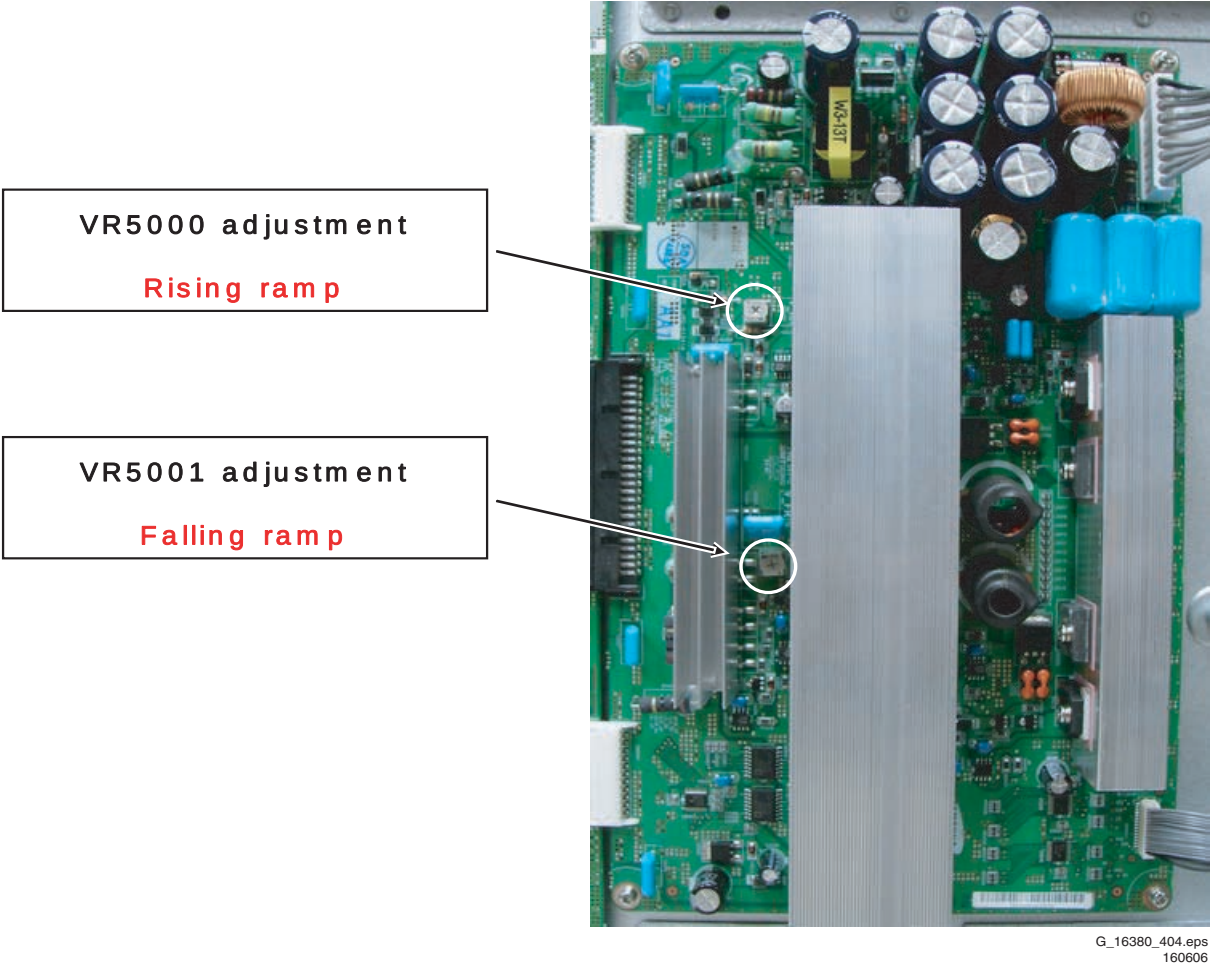


Figure 8-16 Potentiometer locations - 42 SD v5

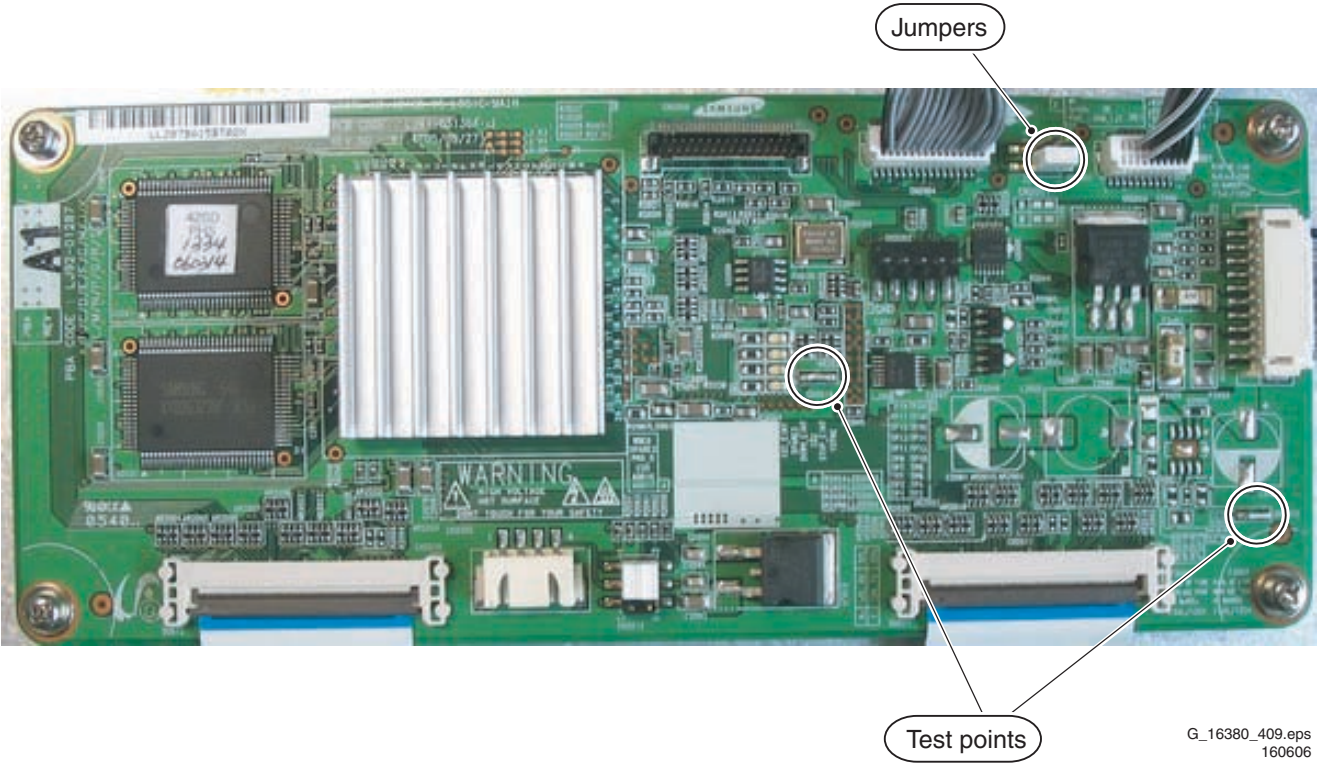
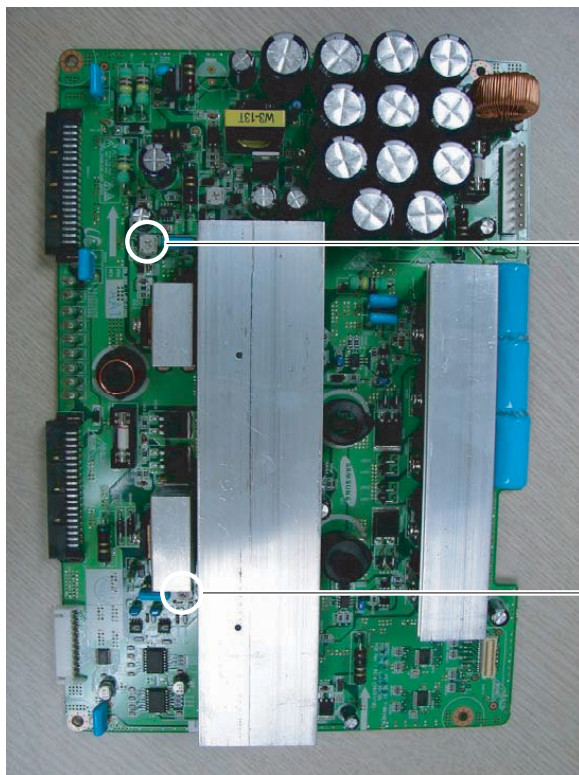


Figure 8-17 Logic PWB - 42 SD v5

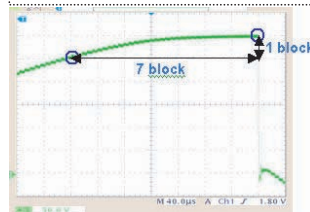
8.3 Waveform Alignments 42" HD w1

1. Set the pattern to Full White:
 - Place jumpers on:
 - J8902 of the PSU alarm board
 - J5003 and J5004 of the PSU
 - Pins 1 and 2 of CN2072 on the Logic Board
 - When the display starts showing a cycle of different patterns, push button SW2001 for at least one second. Now the display shows a continuous full white pattern. To restart the cycle of different patterns, push the button once more and wait for a few seconds.
2. Check the waveform using an Oscilloscope.
 - Triggering through V_TOGG of the LOGIC Board (see Figure "Logic PWB").

- Connect the "OUT240" test point, located at the centre of the Y-buffer PWB, to the other channel, and then check the first Subfield waveform of one TV-Field.
 - Check the waveform by adjusting the Horizontal Division of the oscilloscope.
 - Check the waveform by adjusting the Horizontal Division of the oscilloscope.
 - Check the Reset waveform when the V_TOGG level is changed.
3. Adjust the waveform of the rising ramp with VR5001 (see Figure "Rising ramp waveform adjustment").
 4. Adjust the waveform of the falling ramp with VR5002 (see Figure "Falling ramp waveform adjustment").



VR5001 Adjustment : Rising Ramp
Oscilloscope Setting : 50V / 40us

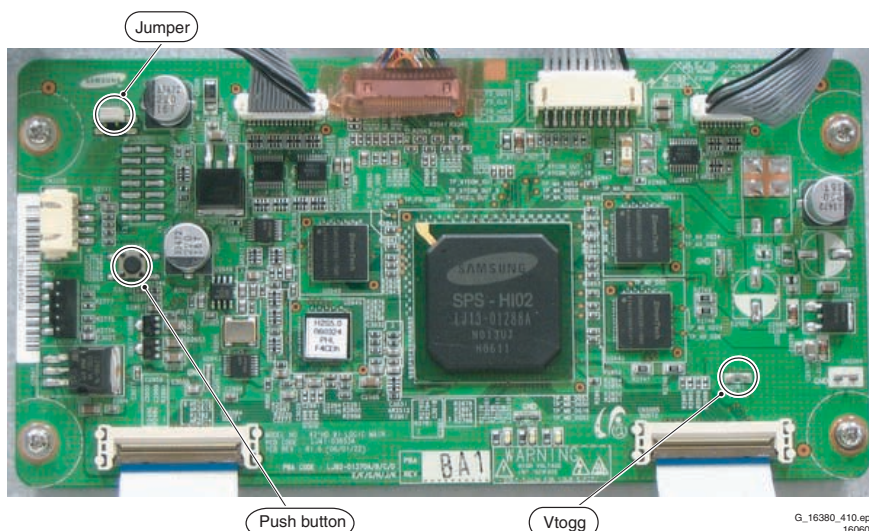


VR5002 Adjustment : Falling Ramp
Oscilloscope Setting : 50V / 40us



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Figure 8-18 Adjusting procedure - 42" HD w1



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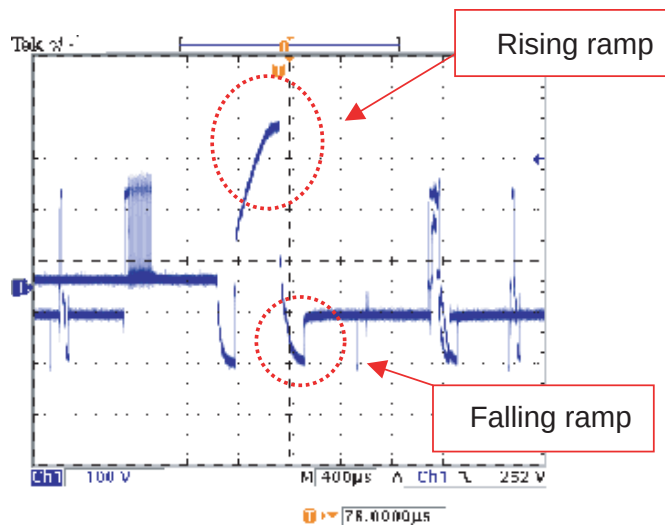
Figure 8-19 Logic PWB - 42 HD w1

8.4 Waveform Alignments 50" HD w1

- Set the pattern to Full White:
 - Place jumpers on:
 - J8902 of the PSU alarm board
 - J5003 and J5004 of the PSU
 - Pin 1 and 2 of CN2072 on the Logic Board
 - When the display starts showing a cycle of different patterns, push button SW2001 for at least one second. Now the display shows a continuous full white pattern. To restart the cycle of different patterns, push the button once more and wait for a few seconds.
- Check the waveform using an Oscilloscope.
 - Triggering through V_TOGG of the LOGIC Board (see Figure "Logic PWB").
 - Connect the "OUT240" test point, located at the centre of the Y-buffer PWB, to the other channel, and then check the first Subfield waveform of one TV-Field.

- Check the waveform by adjusting the Horizontal Division of the oscilloscope.
 - Check the waveform by adjusting the Horizontal Division of the oscilloscope.
 - Check the Reset waveform when the V_TOGG level is changed.
- Adjust the waveform of the rising ramp with VR5001 (see Figure "Rising ramp waveform adjustment").
 - Adjust the waveform of the falling ramp with VR5002 (see Figure "Falling ramp waveform adjustment").

Special notice: It is very important, that you execute this adjustment on the 1st Sub-Field (SF) of the 1st Frame of the Reset waveform and then move to the 3rd Sub-field for adjusting.



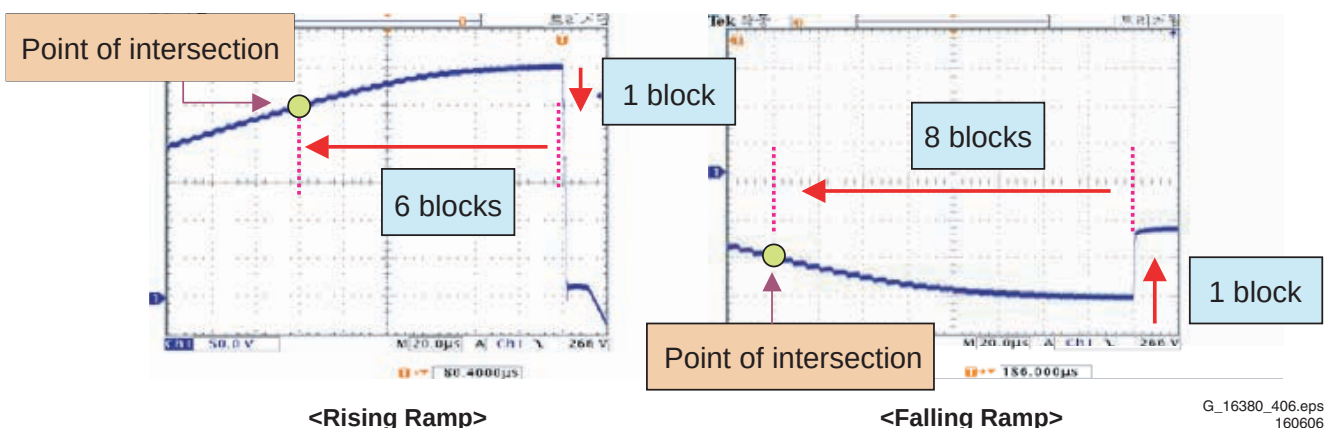
< Main Reset Waveform >

Adjust VR5000 to set the time of Yrr (Main Reset Rising Ramp) like the below picture.

Oscilloscope Setting : 50V / 20us

Adjust VR5001 to set the time of Yfr (Main Reset Falling Ramp) like the below picture.

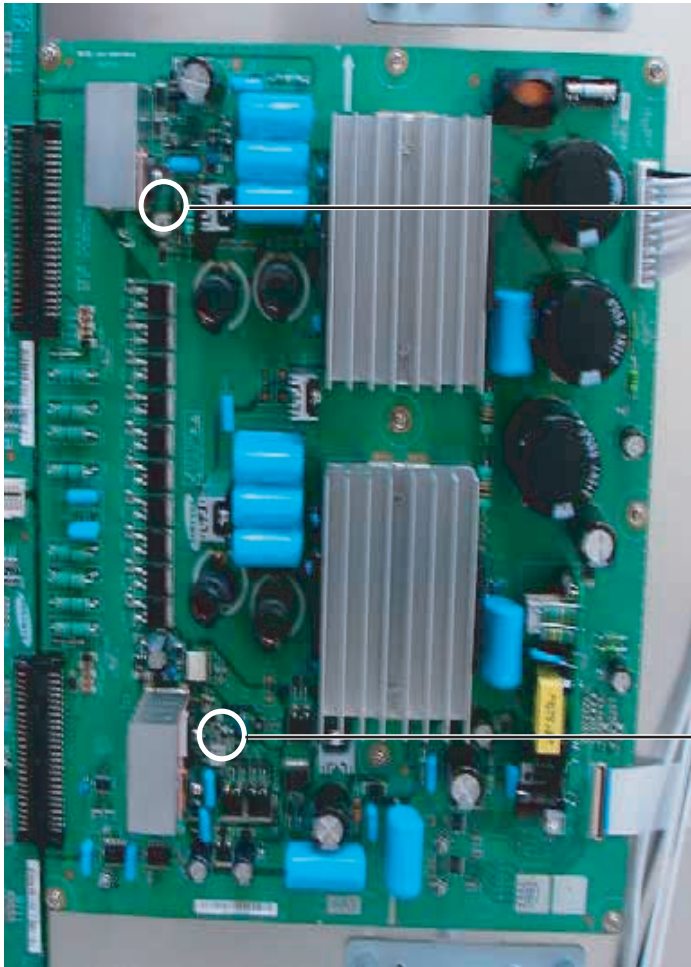
Oscilloscope Setting : 50V / 20us



<Rising Ramp>

<Falling Ramp>

Figure 8-20 TCP ramp waveform inclination adjustment (Y-Board)

**VR5000 Adjustment :**

Adjust VR5000 to set the time of Yrr
(Main Reset Rising Ramp) like the
picture of front page.

Oscilloscope Setting : 50V / 20us

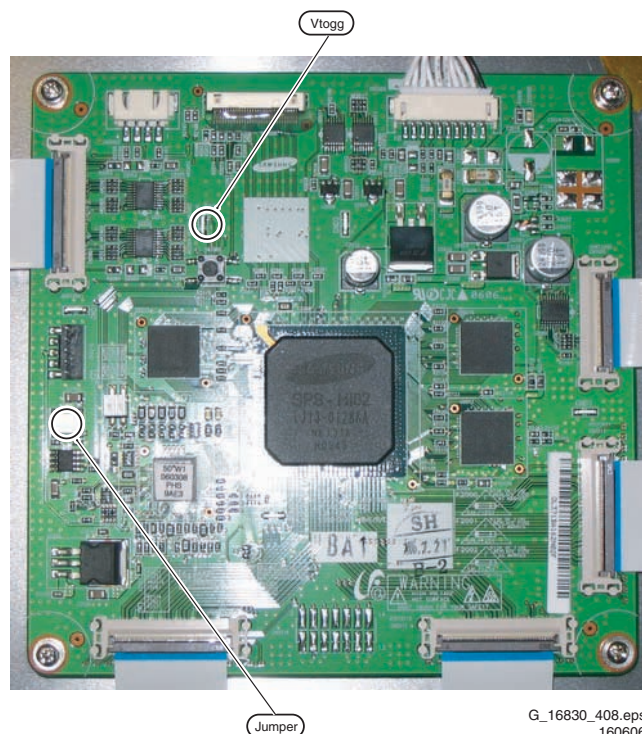
VR5001 Adjustment :

Adjust VR5001 to set the time of Yfr
(Main Reset Falling Ramp) like the
picture of front page.

Oscilloscope Setting : 50V / 20us

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Figure 8-21 Potentiometer locations (Y-Board) - 50 HD w1



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Figure 8-22 Logic Main board - 50 HD w1

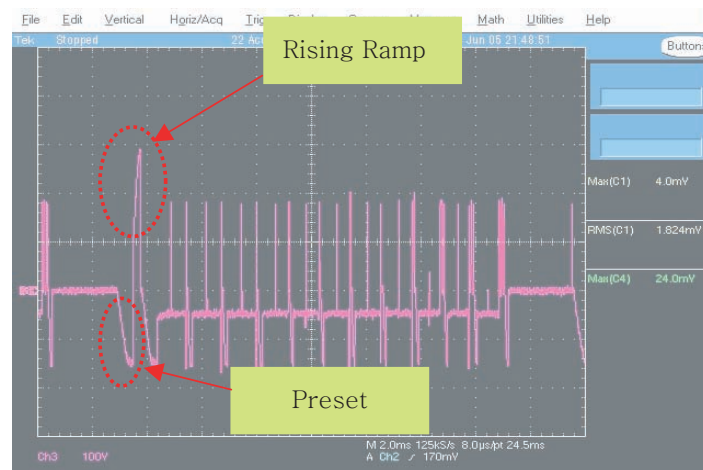
8.5 Waveform Alignments 63" HD v4

1. Set the pattern to Full White:
 - Place a jumper on CN2012 on the Logic Board and switch the display "ON".
2. Check the waveform using an Oscilloscope.
 - Triggering through V_TOGG of the LOGIC Board (see Figure "Logic PWB").
 - Connect the "OUT240" test point, located at the centre of the Y-buffer PWB, to the other channel, and then

check the first Subfield operating waveform of one TV-Field.

- Check the waveform by adjusting the Horizontal Division of the oscilloscope.
 - Check the Reset waveform when the V_TOGG level is changed.
3. Adjust the intersection point of the rising ramp with VR5000 (see Figure "Rising ramp waveform adjustment").
 4. Adjust the intersection point of the falling ramp with VR5001 (see Figure "Falling ramp waveform adjustment").

W1 Ramp Waveform Inclination Adjustment (Y-Board)



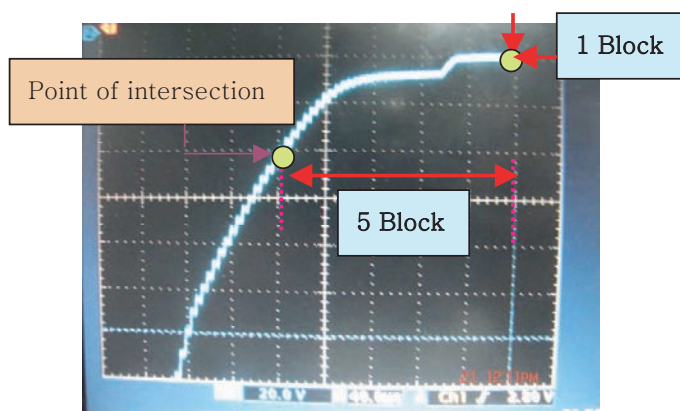
< Main Reset Waveform >

Adjust VR5000 to set the time of Yrr (Main Reset Rising Ramp) like the below picture.

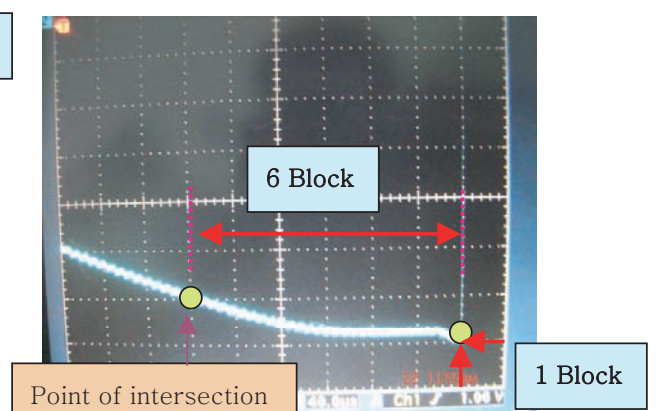
Oscilloscope Setting : 20V / 40us

Adjust VR5001 to set the time of Yfr (Preset) like the below picture.

Oscilloscope Setting : 20V / 40us



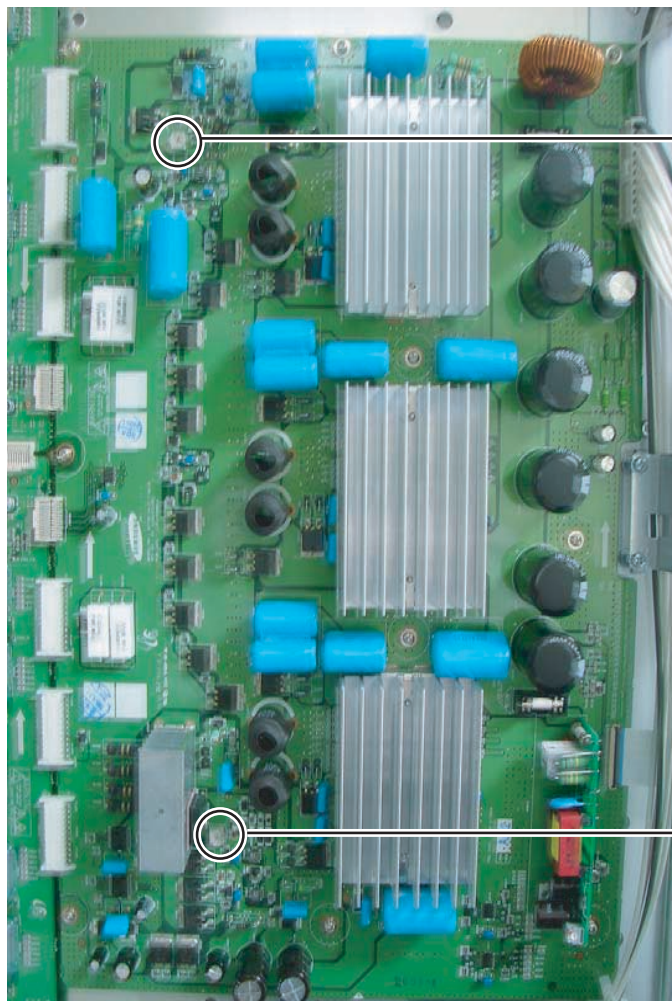
<Rising Ramp>



<Preset>

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Figure 8-23 TCP ramp waveform inclination adjustment (Y-Board)

**VR5000 Adjustment :**

Adjust VR5000 to set the time of Yrr (Main Reset Rising Ramp) like the picture of the previous page.

Oscilloscope Setting : 20V / 40us

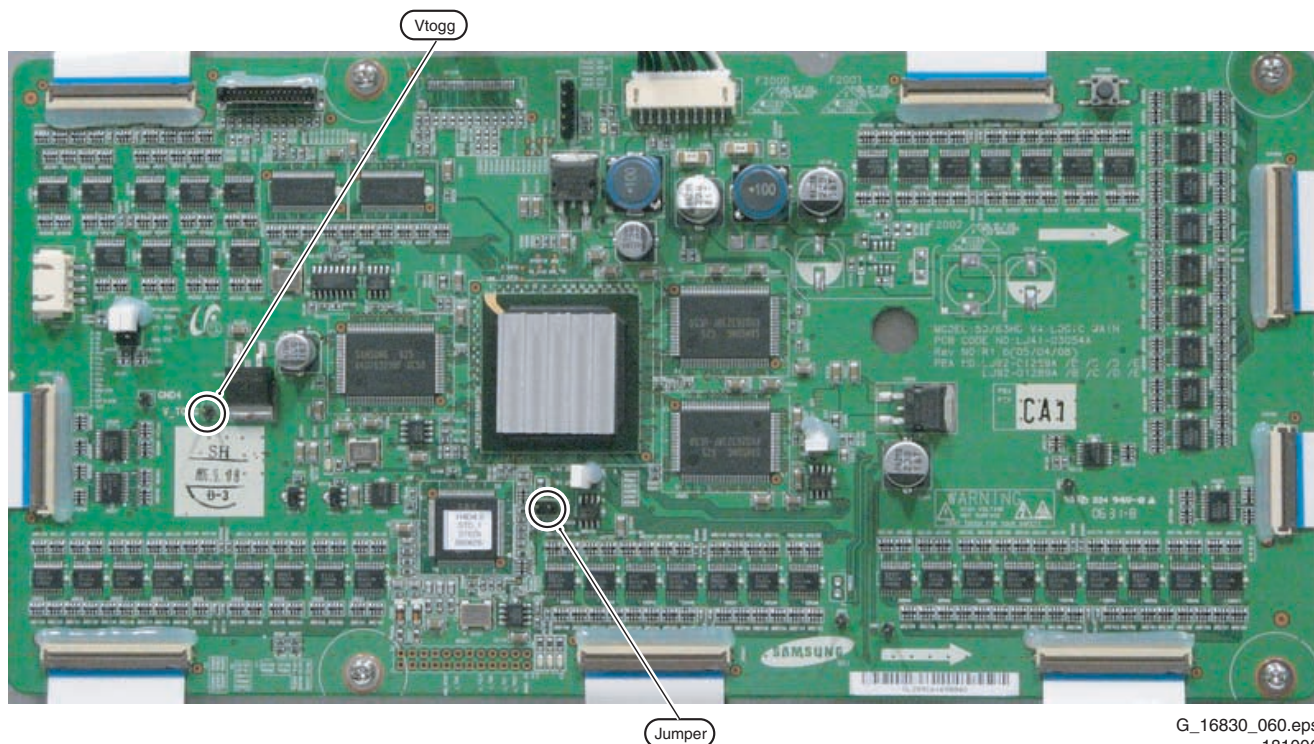
VR5001 Adjustment :

Adjust VR5001 to set the time of Yfr (Preset) like the picture of the previous page.

Oscilloscope Setting : 20V / 40us

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Figure 8-24 Potentiometer locations (Y-Board) - 50 HD w1



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Figure 8-25 Logic Main board - 63" HD v4

9. Circuit Descriptions, Abbreviation List, and IC Data Sheets

Index of this chapter:

- 9.1 Main function of Each Assembly
- 9.2 Abbreviation List
- 9.3 IC Data Sheets

9.1 Main function of Each Assembly

9.1.1 X Main Board

The X Main board generates a drive signal by switching the FET in synchronization with logic main board timing, and supplies the X electrode of the panel with the drive signal through the connector.

1. Maintain voltage waveforms (including ERC).
2. Generate X rising ramp signal.
3. Maintain Ve bias between Scan intervals.

9.1.2 Y Main Board

The Y Main board generates a drive signal by switching the FET in synchronization with the logic Main Board timing and sequential supplies the Y electrode of the panel with the drive signal through the scan driver IC on the Y-buffer board. This board connected to the panel's Y terminal has the following main functions.

1. Maintain voltage waveforms (including ERC).
2. Generate Y-rising Falling Ramp.
3. Maintain V scan bias.

9.1.3 Logic Main Board

The Logic Main board generates and outputs the address drive output signal and the X,Y drive signal by processing the video signals. This Board buffers the address drive output signal and feeds it to the address drive IC (COF module, video signal- X Y drive signal generation, frame memory circuit / address data rearrangement).

9.1.4 Logic Buffer (E, F)

The Logic Buffer transmits data signal and control signal.

9.1.5 Y Buffer Board (Upper, Lower)

The Y Buffer board consisting of the upper and lower boards supplies the Y-terminal with scan waveforms. The board comprises eight scan driver ICs (ST microelectronics STV 7617: 64 or 65 output pins), but four ICs for the SD class.

9.1.6 AC Noise Filter

The AC Noise filter has function for removing noise (low frequency) and blocking surge. It affects safety standards (EMC, EMI).

9.1.7 TCP (Tape Carrier Package)

The TCP applies the Va pulse to the address electrode and constitutes address discharge by the potential difference between the Va pulse and the pulse applied to the Y electrode. The TCP comprise four data driver ICs (STV7610A: 96 pins output pins). Seven TCPs are required for signal scan.

9.2 Abbreviation List

AC	Alternating Current
COF	Circuit On Foil
DC	Direct Current
ERC	Energy Recovery Circuit
ESD	Electro Static Discharge
FET	Field Effect Transistor
FFC	Flat Foil Cable
FPC	Flexible Printed Circuit
FTV	Flat TeleVision
HD	High Definition
I/O	Input/Output
IC	Integrated Circuit
LB	Logic Buffer
LED	Light Emitting Diode
LVDS	Low Voltage Differential Signalling
PCB	Printed Circuit Board (same as PWB)
PDP	Plasma Display Panel
PSU	Power Supply Unit
PWB	Printed Wiring Board (same as PCB)
RGB	Red, Green, Blue colour space
SD	Standard Definition
SDI	Samsung Display Industry (supplier)
SMPS	Switched Mode Power Supply
SSB	Small Signal Board
SF	Sub Field
TCP	Tape Carrier Package
VR	Variable Resistor
Vsc	Scan Voltage
YBL	Y Buffer Lower board
YBU	Y Buffer Upper board
YM	Y Main board

9.3 IC Data Sheets

Not applicable.

10. Spare Parts List

- Notes;
- Determine the SDI part / model number of the PDP.

Find the SDI part number on the actual board to be replaced.

SDI part numbers begin with “LJ92”, except for the SMPS the part number begins with “LJ44”.

Find the SDI board part number in the spare parts overview.

Find the SDI part number in this overview that matches the part number that is actually on the original board.

Cross the SDI board part number to the Philips part number.

Order the Philips part number.

Note: The appearance of a leaded and lead-free board can be different; the colour of the PWB and also the layout of the components are sometimes different.
-
- Figure 10-1 Lead-free logo SDI
- Table 10-1 Spare parts overview
- | PDP type | 42 SD v5 | | 42 HD w1 | | 50 HD w1 | | 63 HD v4 | |
|---|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|-----------------|
| PDP 12 NC | 9322 233 14682 | | 9322 240 08682 | | 9322 240 25682 | | 9322 246 18682 | |
| PDP model type and version | S42SD-YD09 | PP42SD-019A | S42AX-YD02 | PP42AX-009A | S50HW-YD01 | PP50HW-010A | S63HW-YD05 | PP63HW-005A |
| | | | | | | | | |
| BOARDS | SDI part # | 12NC | SDI part # | 12NC | SDI part # | 12NC | SDI part # | 12NC |
| Logic-Buffer (E) | LJ92-01322B | 9965 000 37577 | LJ92-01343A | 9965 000 36813 | LJ92-01372A | 9965 000 36826 | LJ92-01193A | 9965 000 42586 |
| Logic-Buffer (F) | LJ92-01323B | 9965 000 37608 | LJ92-01342A | 9965 000 36814 | LJ92-01373A | 9965 000 36827 | LJ92-01194A | 9965 000 42587 |
| Logic-Buffer (G) | - | - | - | - | LJ92-01374A | 9965 000 36828- | LJ92-01195A | 9965 000 42588- |
| Y-Buffer | LJ92-01339A | 9965 000 36812 | LJ92-01344A | 9965 000 36819 | - | - | - | - |
| Y-Buffer (up) | - | - | - | - | LJ92-01276C | 9965 000 36824 | LJ92-01437A | 9965 000 42589 |
| Y-Buffer (down) | - | - | - | - | LJ92-01277C | 9965 000 36825 | LJ92-01438A | 9965 000 42590 |
| Logic-Board | LJ92-01287C | 9965 000 37576 | LJ92-01370B | 9965 000 36815 | LJ92-01371B | 9965 000 36820 | LJ92-01289C | 9965 000 36820 |
| X-Main Board | LJ92-01340A | 9965 000 36810 | LJ92-01345A | 9965 000 36817 | LJ92-01388A | 9965 000 36822 | LJ92-01385A | 9965 000 42594 |
| Y-Main Board | LJ92-01341A | 9965 000 36811 | LJ92-01346A | 9965 000 36818 | LJ92-01391A | 9965 000 36823 | LJ92-01386A | 9965 000 42595 |
| SMPS (PSU) | LJ44-00101C | 9965 000 33880 | LJ44-00117A | 9965 000 36816 | LJ44-00118A | 9965 000 36821 | LJ44-00123A | 9965 000 42596 |
| SMPS (Sub PSU) | - | - | - | - | - | - | LJ44-00124A | 9965 000 42597 |
| X-Buffer (up) | - | - | - | - | - | - | LJ92-01375A | 9965 000 42591 |
| X-Buffer (down) | - | - | - | - | - | - | LJ92-01376A | 9965 000 42592 |
| | | | | | | | | |
| CABLES + CONNECTORS | SDI part # | 12NC | SDI part # | 12NC | SDI part # | 12NC | SDI part # | 12NC |
| Cable-flat Logic + Y-Main | LJ39-00164A | 9965 000 37609 | LJ39-00265A | 9965 000 37612 | 3809-001789 | 9965 000 37614 | 3809-001546 | 996500042799 |
| Cable-flat Logic + X-Main | LJ39-00252A | 9965 000 37610 | LJ39-00264A | 9965 000 37613 | 3809-001788 | 9965 000 37615 | 3809-001695 | 996500042800 |
| Cable-flat Logic + Logic Buf (E) | 3809-001791 | 9965 000 37611 | 3809-001629 | 9965 000 37617 | 3809-001771 | 9965 000 37618 | - | - |
| Cable-flat Logic + Logic Buf (F) | 3809-001791 | 9965 000 37611 | 3809-001629 | 9965 000 37617 | 3809-001771 | 9965 000 37618 | - | - |
| Cable-flat Logic + Logic Buf (G) | - | - | - | - | 3809-001790 | 9965 000 37616 | - | - |
| Cable-flat Logic + Logic Buf (E) upper | - | - | - | - | - | - | 3809-001743 | 996500042801 |
| Cable-flat Logic + Logic Buf (F) upper | - | - | - | - | - | - | 3809-001742 | 996500042802 |
| Cable-flat Logic + Logic Buf (G) upper | - | - | - | - | - | - | 3809-001745 | 996500042803 |
| Cable-flat Logic + Logic Buf (E) lower | - | - | - | - | - | - | 3809-001744 | 996500042804 |
| Cable-flat Logic + Logic Buf (F) lower | - | - | - | - | - | - | 3809-001741 | 996500042805 |
| Cable-flat Logic + Logic Buf (G) lower | - | - | - | - | - | - | 3809-001768 | 996500042806 |
| Connector Logic Buf (E)+Logic Buf (F) | LJ39-00202A | 9965 000 37619 | LJ39-00259A | 9965 000 37623 | LJ39-00257A | 9965 000 37627 | LJ39-00215A | 996500042807 |
| Connector Logic Buf (F)+Logic Buf (G) | - | - | - | - | LJ39-00257A | 9965 000 37627 | LJ39-00215A | 996500042807 |
| Connector SMPS + Logic Buf (E) | LJ39-00256A | 9965 000 37620 | LJ39-00241A | 9965 000 37624 | LJ39-00266A | 9965 000 37628 | - | - |
| Connector SMPS + Logic Buf (E) upper | - | - | - | - | - | - | LJ39-00234A | 996500042808 |
| Connector SMPS + Logic Buf (E) lower | - | - | - | - | - | - | LJ39-00184A | 996500042809 |
| Connector SMPS + Logic Main | LJ39-00209A | 9965 000 37621 | LJ39-00155A | 9965 000 37625 | LJ39-00266A | 9965 000 37628 | LJ39-00293A | 996500042810 |
| Connector SMPS + Y-Main | LJ39-00263A | 9965 000 37626 | LJ39-00263A | 9965 000 37626 | LJ39-00221A | 9965 000 37629 | LJ39-00239A | 996500042811 |
| Connector SMPS + X-Main | LJ39-00262A | 9965 000 37622 | LJ39-00262A | 9965 000 37622 | LJ39-00220A | 9965 000 37630 | LJ39-00185A | 996500042812 |
| | | | | | | | | |
| CTN / Chassis | CTN | Chassis | CTN | Chassis | CTN | Chassis | CTN | Chassis |
| Sets/Chassis in which this PDP type is used (this list is for indicative purposes only, we do not pretend it is complete) | 42PF5521D/10 | LC4.41E AB | 42PF9431D/37 | BJ2.5U PA | 50PF9631D/37 | BJ2.4U PA | 63PF9631D/37 | BJ3.0U PA |
| | 42PF5521D/12 | LC4.41E AB | 42PF9631D/37 | BJ2.4U PA | 50PF9731D/37 | BJ2.4U PA | - | - |

11. Revision List

Manual xxxx xxx xxxx.0

- First release.

Manual xxxx xxx xxxx.1

- Name changed from “SDI PDP Repair Manual” to “SDI PDP 2K6”.
- Model 63” HD v4 added.